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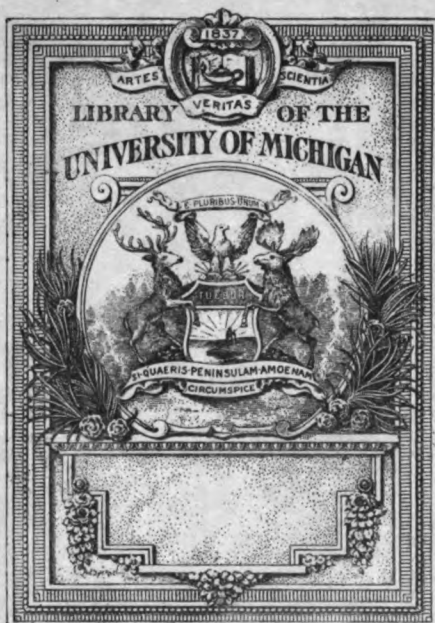
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Elements of the comparative grammar of the ...

Karl Brugmann



THE GIFT OF
Prof. Alexander Ziwet

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E L E M E N T S
OF THE
COMPARATIVE GRAMMAR
OF THE
INDO-GERMANIC LANGUAGES.

Da muss sich manches Rätsel lösen.
Doch manches Rätsel knüpft sich auch.
Goethe's Faust, Part I.

Alexander Ziwet

ELEMENTS
OF THE
COMPARATIVE GRAMMAR
OF THE
INDO-GERMANIC LANGUAGES.

**A CONCISE EXPOSITION
OF THE HISTORY
OF SANSKRIT, OLD IRANIAN (AVESTIC AND OLD PERSIAN), OLD ARMENIAN,
OLD GREEK, LATIN, UMBRIAN-SAMNITIC, OLD IRISH, GOTHIC, OLD HIGH
GERMAN, LITHUANIAN AND OLD BULGARIAN**

BY
KARL BRUGMANN,
PROFESSOR OF COMPARATIVE PHILOLOGY IN THE UNIVERSITY OF LEIPZIG.

**VOLUME I:
INTRODUCTION AND PHONOLOGY.**

TRANSLATED FROM THE GERMAN
BY
JOSEPH WRIGHT, PH. D.

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PREFACE TO THE ORIGINAL EDITION.

Those who have impartially followed the development of comparative philology in the last twenty years will be aware of the great progress it has made in the interval. In both the scope and the nature of its work it has shewn all the elasticity and creative vigour of a science that is still young in spite of its seventy years. That its diverse and scattered details need to be once again brought together under one systematic arrangement will hardly be doubted by any competent judge. The first edition of Schleicher's excellent *Compendium* appeared in 1861, and was since twice published in a revised form by the author, the second time shortly before his death. When it was edited finally in 1876 with very few changes indeed, the two editors were already of opinion that it required complete remodelling (see the preface p. IX). Thus I feel sure that the '*Elements*', the first volume of which is now before the reader, meets a real need.

Time and competent criticism will decide whether it has solved the problem in any degree satisfactorily and whether it can claim to be of the same service to our science and its students as was Schleicher's book in its time. My task was attended by all manner of difficulties and I am fully conscious that in some respects it is inadequately discharged. I trust nevertheless that the result may be of some service, at least for the present.

I take this opportunity of drawing especial attention to one or two points in the plan and execution of my work.

It was not my object to collect all the various views, often widely divergent, which have been from time to time put forward by authorities, on questions relating to the history of the Indo-Germanic languages. As a rule I give only the views that I consider right or at least probable, after submitting them to repeated tests. A mere regard to the size of the book necessitated this course. The most important authorities will be found summarily enumerated in the introduction and at the beginning of the separate sections. To mention in each case who has treated the subject, and who was the first author of the view I have accepted, seemed to me unnecessary to the purpose of the book, and excluded by the small space at my disposal. I took what was good wherever I was sure I had found it; all parties among the different methods and schools of linguistic science are fairly represented in these pages. Hence though I may per-

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haps have overlooked much that is useful, I still hope that approximately at any rate I have attained the aim I had set before me: to exhibit the present state of our knowledge in a concise form, giving prominence to all the more important points.

At the same time I have not confined myself to stating such results as seem certain to stand for all future time. I have spoken of many problems that are still unsolved, in order to give the reader not only a survey of what has been already accomplished, but also a glimpse of the work that still remains to be done. This was indispensable in view of the position in which the science of the Indg. languages at present stands. Thanks to the discovery of many fresh sources of information, and still more, I think, to the fertile combination, which the past ten years have brought about between minute investigation on the one hand and the philosophy of language on the other (the character of which I have endeavoured to sketch in my essay, 'Zum heutigen Stand der Sprachwissenschaft' p. 33 ff.), new problems to be solved have of late arisen on all sides, and that in such numbers that many decades of work will still be needed to master them, so far as we can reckon that they are to be solved at all.¹⁾ Had I silently passed over all such unsettled questions in the history of the Indg. languages, the picture of the whole subject which I tried to draw would have been marred by many grievous blanks. But further I hoped to incite the reader to independent investigation, by referring to much that has not yet passed the stage of problem and hypothesis. In doing so I have taken care that what is uncertain should not preponderate over what is certain, and should everywhere be clearly distinguished from it. And if, instead of merely marking the phenomenon in question as unexplained, I have often hazarded a conjecture, at all events in something like the direction in which the solution of the riddle is to be sought, despite those who resent every 'probably' or 'perhaps' in scientific works, I may quote Goethe's words: 'The opinions you venture, are like the pawns you move forward on the chess-board; they may be taken, but they have introduced a game that will be won'. The conjectures I have admitted into this book should always be regarded only as challenges to more minute investigation.

As regards the arrangement of the material my aim is to let the different branches of language and the separate languages appear each as a unit complete in itself on the common background of the Indo-Germanic primitive community, yet in such a way that each single phenomenon appears separated as little as possible from the kindred examples in other languages. My method of exposition takes about the middle course between that of Bopp's Comparative Grammar on the one hand, which may

1) As regards exceptions and irregularities it has now become the effort of all scholars to aim at seeking for the reason of the exception, not occasionally only, but in every case, and systematically, and we consider our duty to science undischarged until we have found the answer to the 'why'. How many phenomena of language, which once were thought perfectly clear, so that a final judgment could be pronounced upon them, have by this means become unanswered problems!

be described as a connected picture sinking what belongs to the separate languages in the Indo-Germanic whole, and that of Schleicher's Compendium, on the other, which does little more than string together a number of separate grammars. It seeks to unite the excellences of both. This of course could not be done without some sacrifice of system. In the phonology I was obliged to add a series of chapters on combinatory sound-change after tracing the development of the primitive Indo-Germanic sounds one by one. Here I have had now and then to repeat in sum what had already been mentioned or to expand and supplement what before had been merely hinted at. I prefer to submit to this incongruity of arrangement, which Schleicher has avoided, than to disregard consciously the considerable didactic advantage that it affords; and in this point at least I hope to have on my side the academical teachers who lecture on comparative grammar.

In the transcription I have been as far as possible conservative. The reader will easily perceive why I was obliged to discard one or two symbols widely in use, e. g. the representation of the Sanskrit palatal and cerebral sibilants by *ç* and *š* (or *sh*). I ought perhaps in general to have paid even more attention than I have done to the rule that the same sound in different languages should be represented by the same sign: e. g. Av. *ʒ*, not *γ*, on account of the Germanic (Ags.) *ʒ*; Gothic *u*, not *e*, on account of the Old High German *u*. And in several other points the notation might certainly be improved, at least if it be thought desirable to sacrifice what is widely or universally in use in favour of less usual methods. As regards the Aryan languages and Armenian especially, I gladly take this opportunity of expressing a wish, which, I think, most Indo-Germanic scholars share with me, that the Congress of Oriental scholars¹⁾ should sanction by its authority as soon as it is practicable to do so, some suitable system of transcription for these languages, which should have regard to the needs both of special philologists and of comparative scholars, so that the vagaries of the prevailing usage in the matter may be at last brought within bounds. That the question of transcription is not yet ready for a final settlement is no valid objection.

My work has been least independent in dealing with the phonology of Iranian and Armenian. Here I could generally connect it very closely with the excellent works of Bartholomae and Hübschmann, especially with the former's Handbook of the Old Iranian Dialects, and the latter's Armenian Studies. I have only deviated in a very few points from Hübschmann's treatment of the history of the Armenian sounds. In the Keltic branch many will look for a more detailed account of the British dialects. I fully admit that comparative philology must devote more attention to these dialects than has hitherto been the case. But my knowledge in this department is too small for me to venture to set any

¹⁾ The attempt made in the fifth Congress (see 'Verhandlungen des fünften internationalen Orientalisten-Congresses', Berlin 1881, p. 89) has unfortunately led to no result.

dialect of the British group side by side with Irish. It was my intention two years ago to make myself so far familiar with Cymric as to be able to treat the chief features at least of this language along with the rest. My removal to Freiburg however at that time cut me off almost entirely from all Keltological literature, and I was thus obliged to abandon my design. As regards Irish also the want of a library¹⁾ sufficiently furnished with philological literature caused me difficulties in many ways. I am hence all the more thankful to Prof. Thurneysen of Jena [now in Freiburg], who not only sent me information on many points of Keltic philology, but also at my request undertook the trouble of revising the proof-sheets relating to Keltic. Both have been a help to my work in many details, in far more places than has been indicated by a reference to his name. In particular it was such help only that made it possible in all cases to distinguish the British forms correctly according to dialect and period. It may also be remarked that almost all the addenda relating to Keltic p. 565 ff. [now incorporated with the text of this translation] were due to communications from Thurneysen. If I add lastly that my treatment of some of the phenomena of Keltic philology is not in harmony with the views of this scholar, it is in order to prevent misunderstanding, that he may not in any way be made responsible for mistakes that might be found in the Keltic parts of this book. I have to thank Dr. Holthausen of Heidelberg [now in Halle] for some notices relating to Germanic, which he placed at my disposal after an inspection of several proof- and the finally revised sheets and of which I have for the most part made use.

I have not been able consistently to take account of the scientific literature which has appeared this year. I especially lament that the second edition of G. Meyer's Greek Grammar, Braune's Old High German Grammar and the second edition of Leskien's Hand-book of the Old Bulgarian Language did not appear until after my printing had begun.

To facilitate reference, I shall add an index of words at the end of the whole work.

Its continuation and conclusion shall follow as quickly as time and strength permit.

Freiburg i. B., July 1886.

KARL BRUGMANN.

¹⁾ It is only since the founding of the chair for comparative philology that the University library here has systematically purchased works on this subject (apart of course from the classical languages and Germanic), so that the necessary material can only be procured very gradually.

TRANSLATOR'S PREFACE.

When Prof. Brugmann and Mr. Trübner proposed to me, two years ago, while I was still a student in Heidelberg, that I should translate the 'Grundriss der vergleichenden Grammatik der indo-germanischen Sprachen' into English as soon as it appeared, I gladly accepted the proposal, in the hope that I should thus be rendering valuable service both to English and American students of philology, especially to the former who would otherwise very possibly, if they did not happen to know German, have to remain an indefinite length of time without being able to enter into a systematic and scientific study of languages, based on firm and rigid principles.

If the work of translating the original has taken me longer than I at first anticipated it would, this is almost entirely due to the poverty-stricken state of our language as regards current philological technical terms. Some of the terms employed by me, e. g. slurred and broken accent, intersonantal, initiality, strong-grade etc., will no doubt sound strange at first reading. But those, who have either been trained at a German university or are familiar with German philological literature, will readily confess how difficult it sometimes is to find a very exact and appropriate English equivalent for many of the German grammatical technicalities. Time will of course show whether I have in each case hit upon the best term, but I have everywhere tried rather to represent as exactly as I could the meaning of the author than to produce an elegant English paraphrase, which could preserve neither the brevity nor the rigidly scientific form of the original.

Last spring Prof. Brugmann gave me in Leipzig a list of corrections, consisting partly of misprints not given at the end of the original work, and partly of a few slight mistakes which were mentioned in the reviews of the work. These as also the corrections and emendations at the end of the German edition have been worked into the body of the translation. I also received from the author a short time ago one or two other corrections of the original which will be found at the end of the present edition.

At the end of the volume will be found a short list of those abbreviations which would be likely to cause the reader any difficulty.

In conclusion I have to express my sincere gratitude to Prof. Brugmann and Mr. P. Giles, Fellow of Gonville and Caius College Cambridge, for the great assistance they have rendered me by helping in the reading of the proof-sheets.

J. WRIGHT.

London, November 29, 1887.

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INTRODUCTION.

DEFINITION OF THE SCIENCE OF THE INDO-GERMANIC LANGUAGES, AND THE DIVISION OF THE INDO-GERMANIC FAMILY INTO ITS VARIOUS BRANCHES.

§ 1. The science of the Indg. languages forms, like Indg. Mythology, a section of Indg. '*Philology*', i. e. of that science, which has to investigate the intellectual development of the Indg. peoples from the time before their separation up to the present day. Its method accordingly is historical and its task is to investigate the whole development of the Indg. languages from the time when they were still one language down to the present day. Its unity is in no sense broken by the results furnished by the specialists in Sanskrit, Ancient and Modern Greek, Latin and the Romance languages, Keltic etc., for the sciences of the Indian languages, of Ancient and Mod. Greek etc. are integral components of the grand whole formed by that of the Indo-Germanic.

It is true that the so called comparative science of language has hitherto been almost exclusively confined to the older periods of the Indg. languages, but this is due to the division of labour which was involved in the method by which alone progress could be made, as well as to the limitations of human strength. Probably the same division of labour will still be necessary, but it implies no real opposition between the different parts of the science.

Compare the author's inaugural address 'Sprachwissenschaft und Philologie' (in his 'Zum heutigen Stand der Sprachwissenschaft', Strassburg 1885, p. 3 ff.).

§ 2. We are not at present in a position to determine finally what was the primitive home of the Indg. tribes. Only so much is clear, that these tribes in pre-historic times must have been far less widely diffused than they were at the beginning of the historic era. It was formerly usual to place this primitive home somewhere in Asia, whereas at present scholars lean rather to the opinion that the Asiatic members of the stock passed over from Europe. Cp. O. Schrader 'Sprachvergleichung und Urgeschichte', Jena 1883, p. 442 ff.

§ 3. It is impossible to suppose that a language should have gone through a long course of development, and be spoken by a people of any considerable numbers, without a certain amount of dialectical variation; and hence we cannot look upon the speech of the Indogermans, even while they still occupied a comparatively small territory and maintained a fairly close degree of intercourse with one another, as bearing in any strict sense, a uniform character. Local differences had no doubt already arisen, though actual instances of this have hardly as yet been established with perfect certainty. One such I have maintained, though only as a conjecture, in §§ 380, 417. In historical times there appear a multitude of dialects, diverging in a greater or less degree, the whole field of which can hardly be included in any one survey. We may take for granted that the differentiation of dialects about the year 2000 B. C. had gone so far, that a number of communities existed side by side, which could no longer, or only with difficulty understand one another. The historic record of the various individual developments begins at very different periods. E. g. the Indian development is known to us from about the year 1500 B. C. onwards, the Latin from about 300 B. C., the Irish since the eighth century of the Christian era (with the exception of the Ogam inscriptions, cp. § 9), and the Lithuanian from the middle of the sixteenth century.

A number of separate developments, which sprung from the primitive Indg. language, have perished without leaving any traces of their existence. Of others we have only very scanty fragments left, on which it is scarcely, if at all, possible to found a grammar, as of Phrygian, Macedonian, Messapian, Gallic, and Burgundian. The remainder have come down to us with a more abundant supply of material.

The dialects belonging to this last class, are arranged into eight groups (branches of language): 1. Aryan, 2. Armenian, 3. Greek, 4. Albanian, 5. Italic, 6. Keltic, 7. Germanic, 8. Baltic-Slavonic. Each group is distinguished by the fact that its individual members show in common a considerable number of changes in sound, inflexion, syntax and vocabulary; e. g. the shifting of the prim. Indg. explosives, discussed in § 527 ff. (what is known as the first sound-shifting), is one of the numerous characteristics of the close relation existing between the Germanic dialects.

Of the dialects, which have come down to us only in scanty fragments, there are a certain number which can be assigned with certainty to one or other of these eight groups, e. g. the Burgundian to the Germanic, and the Gallic to the Keltic group, whilst others, e. g. the Macedonian, seem to belong to none of them.

It is in itself very possible that some of these eight chief members stand to each other in a closer relationship, and form a single group historically distinct from the rest. All attempts, however, to establish such a closer relationship, have hitherto proved futile. The Italo-Keltic hypothesis has perhaps the best prospect of attaining a greater degree of probability in the future.

Cp. Johannes Schmidt *Die Verwandtschaftsverhältnisse der indogermanischen Sprachen*, Weimar 1872. Leskien *Die Declination im Slavisch-Litauischen und Germanischen*, Leipzig 1876, introduction. Delbrück *Einleitung in das Sprachstudium*, Edition 2. 1884, p. 131 ff. C. Schrader *op. cit.* p. 66 ff. The Author, *Zur Frage nach den Verwandtschaftsverhältnissen*

der indogermanischen Sprachen, in Techmer's Internat. Zeitschr. für allg. Sprachwissenschaft I 226 ff.

§ 4. (1) The Aryan branch consists of the Indian and Iranian groups.

The oldest and most archaic dialect of the Indian group is the language of the Veda, the oldest portions of which (the hymns of the Rigveda) possibly go back as far as 1500 B.C.¹⁾. Next comes Sanskrit in the stricter sense of the word (also called classical Sanskrit), the continuation of a dialect now lost, which existed side by side with the Vedic and differed but slightly from it in the formation of its sounds and inflexions. It became separated from the popular development as the literary language, and was stereotyped in a fixed and purely artificial form. The vulgar language, called Prākṛit, as early as the third century B.C. differed very materially from Sanskrit and at that time was divided into at least three chief dialects. Through the influence of Buddhism, Prākṛit was also raised to a literary language (Pāli). From the popular dialects of Prākṛit have descended the numerous modern Indian languages and dialects, Hindi (Hindustani), Bengali, Uriya, Maharatti, Guzerati, Sindhi, Penjabi and others.

In this work we shall only deal with the Vedic language and classical Sankrit.

Cp. Bopp Kritische Grammatik der Sanskrita-Sprache in kürzerer Fassung, Edit. 3., Berlin 1863. Benfey Vollständige Grammatik der Sanskritsprache, Leipzig 1852. The same Author's Kurze Sanskrit-Grammatik, Leipzig 1855. Whitney Sanskrit Grammar, Leipzig 1879 (with supplement I, Grammatisches aus dem Mahabharata, by A. Holtzmann, 1884; supplement II, The roots, verb-forms, and primary derivatives of the Sanskrit language, by Whitney, 1885).

The oldest recorded dialects of the Iranian group are Old Persian (West Iranian), the language of the Persian

1) Cp. A. Kaegi Der Rigveda, die älteste Literatur der Inder, Edition 2, Leipzig 1881.

cuneiform inscriptions dating from about 520 to 350 B.C., and Avestic, also called Zend and Old Bactrian (East Iranian), the language of the Avesta, the sacred book of the Zoroastrians, which has come down to us with corruptions of many kinds, deviating considerably from its original form. The various portions of the work were composed at very different periods¹⁾. Some parts of the Avesta, including 17 hymns (gāpā f.), are written in a peculiar dialect, which is more archaic than the language of the other parts, and as distinct from which the latter is called Later Avestic or Zend in the stricter sense. Not one of the Modern Iranian languages is a direct continuation of Old Persian or Avestic. The Modern Persian dialects (Gilani etc.), Kurdic and probably also Ossetian (spoken in the neighbourhood of the Caucasus) are more closely related to the former, and the language of Afghanistan (Paštu) to the latter.

We shall only deal with the two Old Iranian languages.

Cp. Spiegel *Die altpersischen Keilinschriften*, Edition 2., Leipzig 1881. Justi *Handbuch der Zendsprache*, Leipzig 1864. Bartholomae *Handbuch der altiranischen Dialekte*, Leipzig 1883.

§ 5. (2) *Armenian*, which de Lagarde and Friedr. Müller assigned to the Iranian group, but Hübschmann (Kuhn's *Ztschr.* XXIII 5 ff., 400 ff.) has proved to be an independent member of the Indg. family of languages, is known to us since the fifth century of our era. The literary language (O.Armenian), which had then become fixed, remained in this usage without any material changes down to modern times, and is separated by a great interval from the modern dialects. Historical investigations have hitherto been almost exclusively confined to O.Armenian. The term *Armenian* will always be used in the sense of O.Armenian.

Cp. Petermann, *Grammatica linguae Armeniacae*, Berlin 1837. The same Author, *Brevis linguae armeniacae grammatica, litteratura, chrestomathia cum glossario*, ed. II, Berlin 1872.

1) On the difficult question as to the age of the Avesta cp. Eduard Meyer *Geschichte des Alterthums I* (1884) p. 501 ff.

Hübschmann *Armenische Studien I*, Leipzig 1883 (of special importance for the phonology).

§ 6. (3) Greek had strongly marked variations in different localities long before Homer's time and in the historic era appears split up into numerous dialects.

These may be classified in the following manner: 1. Ionic-Attic, a. The district of Ionia, b. Attica. 2. Doric, a. Laconia with Tarentum and Heraclea, b. Messenia, c. Argolis and Aegina, d. Corinth with Corcyra, e. Megara with Byzantium, f. the Peloponnesian colonies of Sicily, g. Crete, h. Thera and Melos together with Cyrene, i. Rhodes with Gela and Acragas, k. the other Dor. islands in the Aegean, as Carpathus, Astypalaea etc. 3. North West Greek, a. Phocis, b. Locris, c. Aetolia, d. Acarnania, e. Phthiotis and the district of the Aenianes, f. Epirus, g. probably also Achaia. 4. Aeolic, a. Lesbos and Aeolian Asia Minor, b. North Thessaly, c. Boeotia. 5. Elean (belonging to North West Greek?). 6. Arcadian-Cyprian¹). 7. Pamphylian.

These dialects are found in their purest form on inscriptions. The literary language, especially that of the poets, is in many respects artificially constructed; even the language of the Homeric poems is in great measure an artificial dialect.

Towards the end of the fifth century B. C. there was formed on the basis of the Attic dialect a literary language common to all Greeks, which almost entirely excluded the use of the other dialects from the later prose literature of antiquity. Hence it is that we have to gather our knowledge of most of the non-Attic local dialects either entirely, or almost entirely, from inscriptions.

The language of mediaeval Greek literature is an artificial mixture of ancient Greek with forms of the then spoken popular language in varying degrees of modification. Modern Greek

1) Collitz (*Die Verwandtschaftsverhältnisse der griech. Dialekte* 1885) places this dialect in close relation with Aeolic and puts forward the hypothesis that 'the Thessalian dialect in point of language forms the transition-stage from Bœotian to Lesbian, from Lesbian to Cyprian-Arcadian and from Cyprian-Arcadian to Bœotian' (p. 9).

exhibits a rich development of dialects; as yet little has been done towards fixing the historical relation of the separate dialects to ancient Greek¹⁾.

We shall confine our attention to the development of the O.Gr. dialects.

Cp. Ahrens *De Graecae linguae dialectis*, I. *De dialectis Aeolicis*, Göttingen 1839, II. *De dialecto Dorica*, Göttingen 1843. R. Meister *Die griechischen Dialekte*, I. *Asiatisch-Äolisch. Böotisch, Thessalisch*, Göttingen 1882. G. Curtius *Grundzüge der griechischen Etymologie*, Edit. 5., Leipzig 1879. R. Kühner *Ausführliche Grammatik der griechischen Sprache*, 2 vols., Edit. 2., Hannover 1869—1870. G. Meyer *Griechische Grammatik*, Leipzig 1880 (Edit. 2. 1886). Delbrück *Die Grundlagen der griechischen Syntax*, Halle 1879. The Author, *Griechische Grammatik*, in Iw. Müller's *Handbuch der klassischen Altertumswissenschaft* II (1885) p. 1—126.

§ 7. (4) Albanian, the language of ancient Illyria, has only been known to us from monuments of any extent since the seventeenth century. The historical treatment of this language, which is beset with manifold difficulties — the greatest of which lies in clearly separating pure Albanian words from those borrowed from the Greek, Latin, Romance, Slavonic and Turkish languages —, is still in its infancy.

Cp. Gustav Meyer *Albanesische Studien*, Wien I 1883, II 1884 (in which the whole of the older literature has been collected together) and 'Der Einfluss des Lateinischen auf die alban. Formenlehre' in the *Miscellanea di Filologia, dedicata alla memoria dei professori Caix e Canello* p. 103 ff.²⁾.

We shall only take this language into account in discussing

1) Considerations introductory to the study of the relation of Middle and Modern Greek to O.Greek and the researches on the subject are given by Krumbacher *Beiträge zu einer Geschichte der griech. Sprache*, in Kuhn's *Ztschr.* XXVII 481 ff.

2) The treatise of the same scholar 'Über Sprache und Literatur der Albanesen' in his 'Essays und Studien zur Sprachgeschichte und Volkskunde', Berlin 1885, p. 49 ff. is strongly to be recommended as an introduction to this subject.

the development of the Indg. palatal and guttural explosives § 411 and § 458—460.

§ 8. (5) The Italic branch consists of Latin on the one hand and of the Umbrian-Samnitic dialects on the other.

Latin, with which the little known dialect of Falerii was closely related, is known to us from about 300 B. C. onwards. So long as the language was confined to Latium, there existed no dialectical differences of any importance. The contrast between the popular and the literary language, which had already arisen at the beginning of the archaic period of literature (from Livius Andronicus to Cicero), became still sharper in the classical period, and the further development of the former is almost entirely lost to our observation until the Middle Ages, when the popular Latin of the various provinces of the Roman empire meets us in a form more or less changed and with a rich development of dialects (Romance languages: Portuguese, Spanish, Catalanian, Provençal, French, Italian, Raetoromanic and Roumanian)¹).

We shall only consider the development of the Latin of antiquity.

Cp. Corssen *Über Aussprache, Vocalismus und Betonung der lateinischen Sprache*, 2 vols., Leipzig 1858. 1859, edit. 2., 1868. 1870. R. Kühner *Ausführliche Grammatik der lateinischen Sprache*, 2 vols., Hannover 1877. 1879. F. Stolz and J. G. Schmalz *Lateinische Grammatik*, in Iw. Müller's *Handbuch der klass. Altertumsw.* II (1885) p. 127—364.

The Umbrian-Samnitic dialects are known to a certain extent through inscriptions, which for the most part belong to the last centuries before our era, and through words quoted by Roman writers. We are best acquainted with Umbrian (Bréal *Les tables Eugubines*, Paris 1875, Bücheler *Umbrica*, Bonn 1883) and Oscan (Zvetaieff *Sylloge inscriptionum Oscarum*, Petersburg-Leipzig 1878). Of the Volscian, Picentine, Sabine,

¹) Cp. Budinszky *Die Ausbreitung der lat. Sprache über Italien und die Provinzen des römischen Reiches*, Berlin 1881, Gröber in the *Archiv für lat. Lexikographie* I 35 ff., 204 ff.

Aequiculan, Vestinian, Marsian, Pelignian and Marrucinian dialects we have only very scanty remains (Zvetaieff *Inscriptiones Italiae Mediae dialecticae*, Leipzig 1884). All these dialects were forced into the background at an early period by the intrusion of Latin. The Sabines, who received citizenship in 267 B. C., seem to have been the first to become romanised. The slowest to give way was Oscan, which in the mountains did not perhaps become fully extinct for centuries after the Christian era.

Cp. further Bruppacher *Osk. Lautlehre*, Zürich 1869, Enderis *Versuch einer Formenlehre der osk. Sprache*, Zürich 1871.

§ 9. (6) The Keltic languages fall into three groups: Gallic, Britannic and Gaelic¹).

We know something of Gallic through Keltic names and words quoted by Greek and Latin authors, through inscriptions and coins. But the interpretation of the forms, mostly proper names, is in most cases so uncertain that from these remains linguistic research has hitherto gained comparatively little.

Britannic broke up into Cymric (or Welsh), Cornish and Bas Breton (or Armorican); the connexion between the last two is especially close. We are acquainted with Cymric and Bas Breton from the eighth or ninth century onward, at first through glosses; the oldest records of Cornish are somewhat later. The last named dialect became extinct at the end of the eighteenth or beginning of the nineteenth century, both the others are still living.

Irish-Gaelic, Scotch-Gaelic (which is also known as Gaelic in the stricter sense), and Manx (spoken in the Isle of Man) form the Gaelic division. All three of these are still living. The first two languages seem hardly to have differed from each other in the ninth century. The oldest monuments are the O.Gaelic Ogam inscriptions (Ogam is the native name for the

1) The first two languages have often been classed together as a special group, but without sufficient reason. See Thurneysen *Kelto-romanisches* 1884 p. 7 ff.

Gaelic runes), which possibly date as far back as about 500 A.D. The literary record of Irish begins in the eighth century, at first with glosses, and then from the year 1100 onward we have many extensive manuscripts which contain sagas, ecclesiastical literature etc. Scotch-Gaelic literature begins somewhat later than that of Irish and in the older period is closely connected with Irish. Manx is only known to us during the last few centuries¹).

We shall consider chiefly Old Irish.

Cp. J. C. Zeuss *Grammatica Celtica* (e monumentis vetustis tam Hibernicae linguae quam Britannicarum dialectorum Cambricae Cornicae Aremoricae comparatis Gallicae praeae reliquiis construxit J. C. Z.), Edit. 2. by H. Ebel, Berlin 1871. Win-
disch Kurzgefasste irische Grammatik; Leipzig 1879.

§ 10. (7) The Germanic branch is divided into Gothic, Norse, and West Germanic.

Gothic, the most archaic language of the Germanic group, is chiefly accessible to us through the biblical translation of the West Gothic bishop Ulfilas (311—381 A.D.). The language perished with the Gothic nation. (The East Goths, who dwelt in the Crimea, retained their language down to modern times; but of this branch of Gothic we possess only a few isolated words.)

Norse (or Scandinavian), which in certain special points closely coincides with Gothic²) and is therefore by some writers classed together with it as East Germanic as opposed to West Germanic, down to the Viking period (800—1000 A. D.) was practically a single language, but later on became broken up into four languages, Icelandic and Norwegian (West Norse) on the one hand, Swedish and Danish (East Norse) on the other. The earliest records are runic inscriptions, the oldest of which

1) Windisch's article «Keltische Sprachen» in Ersch und Gruber's A. Encykl. d. W. u. K. second section, XXXV p. 132 ff., serves as a good introduction to the Keltic languages generally, the monuments of these languages and Keltological literature.

2) The most important of these coincidences are Goth. *diþ* = O.Icel. *ggj* from *ǰ* (§ 142) and Goth. *ggv* = O.Icel. *ggv* from *ǰ* (§ 179). Cp. Braune in Paul-Braune's Beitr. IX 546 f.

appear to belong to the fifth century. By O.Norse was, in former times, generally understood O.West Norse only; the term is now more properly applied to the whole development of the Scandinavian languages up to the sixteenth century.

The oldest representatives of West-Germanic are Anglo-Saxon, the continuation of which is Mod.English; O.Frisian; O.Saxon, now Low German; O.Low Franconian, now Dutch, Flemish, and the language of the German Lower Franconia; and O.High German, the present Upper- und Middle German dialects. The oldest records of these languages date from the eighth or ninth century, the oldest OHG. record belonging to about the period 740—745; but with Frisian we are acquainted only since the fourteenth century.

We shall limit ourselves chiefly to Gothic and Old High German.

Cp. J. Grimm *Deutsche Grammatik*, I², II², new reprint, Berlin 1870. 1878, III. IV Göttingen 1831, 1837. Rumpelt *Deutsche Grammatik, mit Rücksicht auf vergleichende Sprachforschung*, I (Lautlehre) Berlin 1860. A. Holtzmann *Altdeutsche Grammatik* I, 1 (Die specielle Lautlehre), 2 (Vergleichung der deutschen Laute unter einander), Leipzig 1870. 1875. W. Scherer *Zur Geschichte der deutschen Sprache*, edit. 2., Berlin 1878. Leo Meyer *Die gothische Sprache, ihre Lautgestaltung insbesondere im Verhältniss zum Altindischen. Griechischen und Lateinischen*, Berlin 1869. W. Braune *Gotische Grammatik*, edit. 2., Halle 1882. L. Wimmer *Altnordische Grammatik*, translated from the Danish by E. Sievers, Halle 1871. A. Noreen *Altnordische Grammatik* I (Altisl. und Altnorw. Gramm. unter Berücksichtigung des Urnordischen), Halle 1884. E. Sievers *Angelsächsische Grammatik*, Halle 1882 (2. ed. 1886). W. Braune *Althochdeutsche Grammatik*, Halle 1886. O. Behaghel *Die deutsche Sprache*, Leipzig und Prag 1886.

§ 11. (B) The Baltic-Slavonic branch. The Baltic division consists of Prussian, Lithuanian, and Lettic. The former died out in the seventeenth century and we only possess very few imperfectly recorded specimens dating from the fifteenth and

sixteenth centuries. The two latter are still living and their oldest records belong to the sixteenth century.

We confine ourselves chiefly to Lithuanian.

Cp. Nesselmann *Die Sprache der alten Preussen*, Berlin 1845. The same author, *Thesaurus linguae Prussicae*, Berlin 1873. Schleicher *Litauische Grammatik*, Prag 1856. Kurchat *Grammatik der litauischen Sprache*, Halle 1876. Bielenstein *Die lettische Sprache, nach ihren Lauten und Formen erklärend und vergleichend dargestellt*, 2 Theile, Berlin 1863. 1864. The same author, *Lettische Grammatik*, Mitau 1863.

The Slavonic languages fall into a South-Eastern and a Western group. To the former belong Russian (a. Great Russian and White Russian, b. Little Russian), Bulgarian and Illyrian (a. Servian and Croatian, b. Slovenian), to the latter Czech (Czech in the stricter sense, Moravian and Slovakian), Sorabian or Wendish (Upper- and Lower Sorabian) and Lechish (Polish and Polabian or Elbe-Slavonian). All these languages, with the exception of Polabian, are still living. The most archaic, and for Indg. grammar the most important, is the language in which the Slavonic apostles Cyril and Methodius (ninth century) wrote. In our investigations we accordingly consider this language of the first importance. It is called O.Slovenian by Miklosich, but by Schleicher, Schaffarik and others with more justness O.Bulgarian. It became the ecclesiastical language of the Greek church, and that form of it, which was modified through the influence of other Slavonic languages, especially of Russian, is generally known by the name of Church Slavonic.

Cp. Miklosich *Vergleichende Grammatik der slavischen Sprachen* 4 vols. Vienna, I² 1879, II 1875, III² 1876, IV 1874. Schleicher *Die Formenlehre der kirchenslavischen Sprache erklärend und vergleichend dargestellt*, Bonn 1852. Leskien *Handbuch der althbulgarischen (altkirchenslawischen) Sprache*, Weimar 1871, edit. 2., 1886.

§ 12. In accordance with what has been said in §§ 4—11, we shall speak exclusively or at all events especially of the oldest periods of those languages whose developments are

known to us through records extending over a great length of time. The term 'science of the Indg. languages', as has been already stated in § 1, does not demand such a restriction. This division of labour is wholly due to the course which the science has hitherto taken, and is fully justified by the present state of the science. Bopp in his *Vergleichende Grammatik* (3 vols., edit. 3, Berlin 1868—1871) and Schleicher in his *Compendium der vergleichenden Grammatik der indogermanischen Sprachen* edit. 4, Weimar 1876) also limit themselves similarly as we have done.

When we speak of primitive Indg. forms; of prim. Ar.; of prim. Gr. or of prim. Ital. etc., we generally mean those forms which were in use towards the close of the primitive period of these languages. But we also often mean such forms as belonged to an earlier period of this stage, and which had already undergone a change towards its termination. For instance, we therefore speak equally well of prim. Germ. **faṛχō* and of prim. Germ. **faχō* (Goth. *faha*, s. § 214), of prim. Gr. **ποραι* and prim. Gr. **ποσαι* (Att. *ποσι*, s. § 490), as of Lat. *sequuntur* and Lat. *secuntur* (§ 431). Forms, put down by us as prim. Ind., prim. Ar. etc., are therefore not to be indiscriminately regarded as belonging to the same period. Again, if we, for example, uniformly write *χ*, not *h*, in prim. Germ. forms where we put *h* for Gothic words, it must not be implied that *χ* had not in certain cases already become *h* in prim. Germanic (cp. § 529).

ON THE STRUCTURE OF THE INDO-GERMANIC LANGUAGES IN GENERAL. ROOT AND SUFFIXES.¹⁾

§ 13. The Indg. languages belong to the inflexional class. The inflexion of words has not existed from the very beginning, but has been gradually developed and perfected.

1) With what follows compare Delbrück *Einleitung in das Sprachstudium*² (Leipzig 1884) p. 61 ff. and Paul *Principien der Sprachgeschichte* (Halle 1880) p. 154 ff.

We have to presuppose a period in which suffixal elements were not yet attached to words. The word-forms of this period are called roots, and the space of time prior to inflexion, is called the root-period. It dates much further back than that stage of development whose word-forms we are able to deduce by a comparison of the separate Indg. groups of languages. This stage is usually simply called the Indg. parent-language.

What we understand by word-formation and inflexion arose by composition, that is, by the following process: a group of words which formed a syntactical complex was fused into a unity, in which the whole was in some way isolated in relation to its elements¹⁾. This word-fusion from the beginning onwards occurred in the same way, just as afterwards, in the age of separate languages (partly even in historical periods) the final members of compounds became suffixes, e. g. Goth *-k* in *mik* (Mod. HG. *mich*) from prehistoric **me ge* (cp. Gr. *ἐμέγε* beside *ἐμί*), French *-ment* in *fièrement* from *fera mente*, MHG. and Mod.HG. *-heit* in *schönheit*, originally meaning 'schöne Beschaffenheit' (beautiful state or condition), where *heit* is still an independent word in MHG. and OHG., Mod.Irish *-mhar* in *buadh-mhar* 'victorious' = O.Ir. *mār mōr* Cymr. *maur* 'magnus' (Zimmer Kelt. Studien II p. 22 ff). The formation of suffixes is not a work which belongs to any special prehistoric period and which was concluded at any definite point of time. But when once this process had begun, it was performed anew through all periods of the history of the Indg. languages and will probably also be repeated again in the future, so long as our languages continue to develop.

1) "With respect both to meaning and form either the whole may pass through a development in which the separate parts do not participate when used independently, or vice versa the separate parts may pass through a development in which the whole does not participate, or it may happen that the separate parts cease to be employed independently, while they are preserved in combination, or lastly the mode of combination may vanish from living use and only remain preserved in certain set forms". Paul in the above work p. 165.

Suffixes are divided into word-forming suffixes or inflexional suffixes in the stricter sense, to which on the one hand belong case endings (e. g. *-m* in Indg. **ēkyom* = Lat. *equom*, Skr. *áśvam*), and on the other, personal endings (e. g. *-mi* in Indg. **éimi* = Gr. *ἔμυ*, Skr. *émi*), and stem-forming suffixes (e. g. *-ter-* in Indg. **pátēres* = Gr. *πατέρες*, Skr. *pítáras*, *-sko-* in Indg. **gṃskónti* = Gr. *βάσκοντι* *βάσκουσι*, Skr. *gáchanti*). It is impossible to draw a sharp line between the two species of suffixes, since many an element, which was originally only stem-forming, has come to be treated on the same level with word-forming suffixes. Cp. e. g. Lat. *legiminī*, whose final part *minī*, felt by the Romans as a personal ending (like *-mur* etc.), contains the stem-forming suffix *-meno-* (cp. Gr. *λεγόμενοι*); properly *legiminī estis* = *λεγόμενοι ἔστε*.

The derivation as well as the original value of those suffixal elements, which in the Indg. prim. period were already no longer felt to be the members of a compositum, is for the most part very doubtful. Of the conjectures which have been put forth regarding these suffixes, there are only a few to which one can allow a certain amount of probability. To these belongs especially the hypothesis, that a part of the personal endings were originally independent substantival pronouns, cp. the *-m* of the 1. sg. impf. Indg. **ēbherom* (Skr. *ábharam*, Gr. *ἐφερων*) with the pronominal stem **-me* (Lat. *mē*, Goth. *mi-k*).

There are in the Indg. languages many words of which we can not prove that they either contain or ever did contain a suffix. These, therefore, apparently represent the form they had in the pre-inflexional period, e. g. Gr. *μὲ*, Goth. *mi(-k)* cpf. **me*; Skr. *nú*, Gr. *νὺ*, Lat. *nu(-dius)*, O.Ir. *nu no*, OHG. *nu no*, Lit. *nù(-gi)* 'now'. In other cases, root-words had disappeared in those compositions which we call inflected words. We must guard against fancying that, towards the close of the primitive period, or even later, elements like *es*, which we abstract as root from such forms as Indg. **ésti*, (Gr. *ἔστι*, Skr. *ásti*), had an independent existence and a meaning without any definite syntactical relation.

§ 14. According to the analogy of such forms as Fr. *à-vis*, *rouge-gorge*, it has become usual to indicate component parts of inflected words by hyphens, e. g. Gr. *ἐλ-μι*, *πα-τέρ-ες*, *φείρ-ο-ι*, in the same manner Indg. **ἐλ-μι*, **πα-τέρ-ες*, **bhér-o-ι-t*. It is thus intended to give a clear idea as to what parts of an inflected word once had an independent existence.

With regard to this mode of proceeding the following remarks are to be made.

1. We have seen in § 13, that as the first foundations of derivation and inflexion were laid by the fusion of independent elements, so this process has been continually repeated up to the present time. But the great majority of inflexional forms do not directly depend upon it. No sooner did the first inflexional compounds make their appearance, than they served as the models upon which other words were formed after their analogy, just in the same manner as most of the Mod. HG. composita in *-heit*, *-bar*, *-lich* etc. can no longer be conceived as proper syntactical compounds, but only as imitations of model forms, made at an earlier period. Composita, the formation of which we are able to trace in the younger stages of the separate languages, often exhibit manifold shiftings and deviations. The reason of these latter is, that all feeling for the mode of composition of the model forms became extinct. Thus, for instance, according to the analogy of Mid.HG. *miltekeit* from *miltec-heit* (cp. *miltec-lîch*) etc. have arisen such forms as Mod.HG. *frömmigkeit*, *eitelkeit* etc., by the abstraction of a suffix *-keit*. Such shiftings may also have taken place in the oldest stages of the inflexional period, so that, strictly speaking, we are never sure in the case of a suffix which has come down to us from the Indg. parent language, whether it ever existed as an independent word exactly in the same shape as we extract it from the body of a word, or whether it originally consisted of elements which passed into this shape by regular phonetic changes.

2. It very frequently happens, that two or more suffixes become fused into a unity in those periods of a language which we are able to control. E. g. Mod.HG. *-ner* in *bild-ner*, *harf-ner*

etc. is due to the *-ner* in such forms as *gärtn-er* (Mid. HG. *garten-ære*), which is a derivative of *garten*; Gr. *-αίνω* in *κρηδ-αίνω*, *λευκ-αίνω* etc. to the *-αίνω* in such forms as *τεκταίνω* from **τεκταν-ιω* (to *τέκτων*). In like manner many of the prim. Indog. suffixes, which we are wont to regard as a unity, e. g. the *-ter-* in **pə-tér-es* (Gr. *πατέρες*), may have been fused together out of several suffixal elements. Our inability to analyse a prim. Indg. element proves nothing for its primitive unity.

3. It is theoretically correct when we say that the root of a word is found after we have removed all formative syllables from it. But in the first place we do not know what shape Indg. words had towards the end of the root-period, and this applies especially to the fact that we are unable to say whether the language at this stage possessed only monosyllabic words, or only words of more than one syllable, or both categories. Secondly the analysis of elements, which were directly annexed to the ends of roots, is of a most doubtful nature. And lastly we are unable to determine what phonetic changes inflexional compounds had undergone from the beginning up to the dissolution of the primitive community. Hence it must not be supposed that the roots, which we in ordinary practice abstract from words, are at all to be relied upon as representing the word-forms of the root-period. We are utterly unable to determine e. g. whether the complex **anə-* in Gr. *ἀνέ-μο-ς*, Lat. *ani-mu-s*, Skr. 3. sg. *āni-ti* 'breathes' (cp. § 110) represents a unitary word of the root-period, or whether it is to be resolved into **an-ə-*, that is, whether *-ə-* was a suffix, and thus originally an independent element.

Such being the state of things, we shall retain the terms 'root' and 'suffix' in this work for such parts of a word as *seq-* and *-e-*, *-tai* in Indg. **ségetai* (Skr. *sácatē*, Gr. *ἐπεται*). We do not however assert that the elements, to which we give these names, ever existed as independent words. We merely indicate by means of hyphens (1) what was probably felt at any particular period as the nucleus (so to speak) of a whole system of word-forms (*seq-*), and (2) what was regarded as the formative

element (-e- and -tai in *séq-e-tai, *bhéydh-e-tai, *bhér-e-tai etc.), shared in common by a greater or less number of different words. The elements -e- and -ə- in cases as Gr. ἐπ-ε-ται (Indg. *seq-e-) and fut. τινέω τενῶ from *τεν-ε-σω (Indg. *ten-ə-, cp. Skr. fut. tan-i-ṣyāmi) may nevertheless originally have been parts of roots (disyllabic root-words); but on account of forms like πύθεται, φέρεται, ἄγεται and νεμέω, φθερέω, βαλέω on the one hand and of forms like ἔπομαι and τείνω (from *τενω, §§ 131. 618) on the other, it becomes highly probable that they simply were for the perception of language (sprachempfindung) that which grammarians call "suffix" ¹⁾.

1) 'A certain analysis of forms takes place in the formation of associated concepts which refer to the system of word-formation and inflexion, whereby categories arise which are analogous to the grammatical notions of root, stem, and suffix. But it must always be borne in mind, firstly, that the mind remains entirely unconscious of these categories as such; secondly that they have nothing to do with the original mode of the formation of words, but purely accommodate themselves to the sound-series (Lautreihe) which regularly goes through a number of forms in the language for the time being, so that e. g. in Mod. Germ. tag-, hirt- appear as nominal stems, trag- and brenn- as verbal and present stems, trug- and brannt- as the preterite stems of tragen and brennen; thirdly that the elements arising from analysis are never felt as something entitled to an independent existence, but only as something which is possible in certain modes of combination'. Paul Principien p. 64.

PHONOLOGY.

§ 15. By a comparison of the eight Indo-Germanic dialects (§ 3) we are in a position to arrive at the number and nature of the sounds possessed by the Indg. parent language. These were as follow: —

Vowels. In the function of sonants: *i ī, u ū, e ē, o ō, a ā, ə*. In the function of consonants: *ɨ, ʉ*.

Nasals. In the function of consonants: *ɲ* (velar), *ɳ* (palatal), *n* (dental), *m* (labial). In the function of sonants: *ɲ̄, ɳ̄, n̄, m̄*.

Liquids. In the function of consonants: *r, l*. In the function of sonants: *ɾ ɿ, ʎ ʟ*.

Explosives:

<i>p</i>	<i>b</i>	<i>ph</i>	<i>bh</i>	(labial).
<i>t</i>	<i>d</i>	<i>th</i>	<i>dh</i>	(dental).
<i>k</i>	<i>g</i>	<i>kh</i>	<i>gh</i>	(palatal).
<i>q</i>	<i>g</i>	<i>qh</i>	<i>gh</i>	(velar).

To these is probably further to be added the spiritus lenis, a laryngeal explosive, e. g. Indg. **ésti* 'is', Gr. *ἔστι*. In the following paragraphs we shall indicate this sound only in Greek words.

Spirants: *s, z, j, v*.

Phonetic Elucidations¹⁾.

§ 16. 1. Voiced and voiceless sounds. Speech-sounds²⁾ are produced by the breath, expelled from the lungs, undergoing a checking which gives rise to an acoustic effect. This checking takes place partly in the larynx, partly in the organs above the larynx (mouth, or nose), and partly in both at the same time. When the checking in the larynx takes place in such a manner that the vocal cords (which in a state of rest are far apart) are so far brought together as to come into (rhythmical) vibration, a musical clang arises which is called voice. All sounds, which are spoken with voice, are called voiced, and all those without voice voiceless. In the Indg. prim. language the vowels, nasals, liquids, of the explosives the mediae *b, d, g, q* and the mediae aspiratae *bh, dh, gh, qh*, and the spirants *z, j, v* were voiced; on the other hand the tenues *p, t, k, q* and the tenues aspiratae *ph, th, kh, qh* and the spirant *s* were voiceless.

The voiceless vowels (the *h*-sounds), nasals and liquids³⁾

1) Cp. Ed. Sievers *Grundzüge der Phonetik, zur Einführung in das Studium der Lautlehre der indogermanischen Sprachen*, 2. Edit. Leipzig 1881, 3. Edit. Leipzig 1885.

2) It is not without considerable justification that the expression 'speech-sound' ('Sprachlaut') has of late been found fault with, so far as it is used to express the smallest elements of language in general, because among the so called explosives there are moments of perfect absence of sound which are also to be taken into consideration. And these moments form an element of a syllable just as much as the moments of sound, while in the analysis of a syllable they can no more be left out of consideration than the pauses in music can be regarded as not existing. Cp. § 320. If in this work we have not attached that amount of importance to the latest principles of phonetics — viz. that in the classification of speech-elements, their genesis, not their acoustic effect, should form the chief principle — which some phoneticians might wish to see, it is out of consideration that we do not yet possess a system and terminology, based on these views, which might be applied without considerable difficulties to the historical results of the science of languages.

3) Cp. Hoffory Kuhn's *Ztschr.* XXIII 533 ff., 541 ff., 554 ff., XXV 425 f., 'Prof. Sievers und die Principien der Sprachphysiologie' 24 ff.

in the course of the individual developments were added to the respective voiced sounds of the primitive period.

§ 17. 2. Sonorous sounds and noised sounds. The mouth and nose on the one hand, serve to modify the clangs formed in the larynx, on the other hand 'noises', which are independent of the activity of the larynx, can be produced in these organs through the current of breath undergoing a checking and friction. In uttering *t*, *s*, e. g. a noise is made on the inner side of the upper teeth, or on their sockets. Voice and noise formed in the mouth and nose (Ansatzrohrgeräusch) can be combined, e. g. in *d* and *z* (Fr. *zéro*, Russ. *zoloto* 'gold'). Those sounds, which are formed with noise, whether they be voiceless or voiced, are called noised sounds, whereas those, in which the formation of voice takes place in the larynx, while the mouth and nose merely serve as resonance chambers, are called sonorous sounds. The Indg. explosives and spirants were noised sounds, and the Indg. vowels and nasals, sonorous sounds. The *r*- and *l*-sounds were and are in the historic periods of the Indg. languages partly sonorous and partly spirantal in their formation. And it is not improbable, that the spirantal pronunciation, where it occurs in historic times, had everywhere first come into being during the course of the separate history of the respective Indg. languages.

§ 18. 3. Sonants and Consonants. Every syllable contains one sound, which is either alone or at least principally the bearer of the accent, e. g. the bearers of this accent in the word *hóff-núng* are *o* and *u*. Such sounds are called sonants. The other elements of a syllable are to a certain extent only adjuncts to the sonant which forms the nucleus of the syllable, and are therefore called consonants. Every syllable must contain one sonant and can contain only one, whereas it can have several consonants (Mod. German *strúmpfs*) or none at all (Lat. imperative *í*¹). One set of sounds can be used both as sonants and as consonants, especially the vowels —

1) By this classification we omit to take account of the *spiritus lenis*, which strictly speaking ought to be reckoned among the consonants.

amongst these particularly *i*, *u* —, the nasals and liquids; we write these sounds *i u ŋ, ʃ* etc. when used as sonants, and *i, ŋ, n, r* etc. when used as consonants. Cp. Mod. German *Á-si-en* beside *Á-si-én* (in poets); Lat. *á-quám* beside *á-cú-ám*, *stn-guó* beside *ár-gú-ó*; English *ré-př-zŋ-tě-šŋ* (*representation*); Mod.Germ. *réch-né* beside *ré-chŋt* (*rechnet*), *gŋ-núg* (*genug*), *hán-dlé* beside *hán-dŋ*, *gŋ-rá-dé* (*gerade*); Czech *kŋt* (*krt* 'mole'), *vŋk* (*vlk* 'wolf'); Skr. *pí-trá* (*pitrá*, instr. sg. of *pitár*- 'father') beside *pí-tŋ-šŋ* (*pítŋšu*, loc. pl. of the same word)¹); in Slovakian *sŋn*, *vŋn* (*srn*, *vln*) gen. pl. to *sŋ-ná* (*srna* 'roe'), *vŋ-ná* (*vlna* 'wave').

In our representation of pre-historic forms we consequently mark *i* and *u* also as consonants when they form the second component of a diphthong, e. g. Indg. 3. sg. **éŋti* = Gr. *εἶσι* Skr. *éti*, **bhéydhetai* = Gr. *πύθεται* Skr. *bódhatē*. The vowels *i* and *u* had here the same function as e. g. *r* in the 3. sg. **bhérti* from rt. *bher*- 'bear' (Skr. *bhárti*, Lat. *fert*) and *n* in the 3. sg. **bhebhóndhe* from rt. *bhendh*- 'bind' (Skr. *babándha*, Goth. *band*). Cp. § 308.

Rem. A few phonetic elucidations on the explosives and spirants will be found in § 320 ff. and § 554.

On the pronunciation of the letters.

§ 19. The various Indg. languages and dialects were and still are written in various alphabets by the respective peoples and their subdivisions. Sometimes different kinds of alphabets were even employed in different districts lying within the sphere of the same dialect, or also in the same district for different purposes, e. g. in Oscan (inscriptions in the Oscan-Samnitic, Latin, and Greek alphabets) and in Servian (the Cyrillic alphabet is employed by the followers of the Greek Church, and the Latin by the Roman catholics). It also frequently happened that one alphabet was permanently given up in favour of another, cp.

1) Skr. *pitrá* stands in the same relation to *pítŋšu* as *hánvā* i. e. *hánvā* does to *hánvŋšu* (stem *hánu*- 'jaw-bone') and as *ávyā* i. e. *ávyā* does to *ávyŋšu* (stem *ávi*- 'sheep').

e. g. the change from the runic to the Latin alphabet among the Germanic races.

It has become usual in works on Indg. grammar to employ native characters only in the case of Greek, Latin, and those younger developments which were and still are written in the Latin alphabet, but for the rest to make use of a transcription, based on the Latin alphabet. Now the Latin system of letters is insufficient for the transliteration of most foreign alphabets, and when this is the case, it is usual either to add a diacritic sign to the Latin letter, or to borrow a letter from other known alphabets.

The exposition of the history of the various sounds will furnish further information as to the living value of the letters. With regard to the transcription which we have adopted for the various languages, we simply make such observations here as will enable the reader to pronounce the words correctly or at least approximately so; in the case of dead languages it is, of course, often impossible to determine precisely the value of a letter.

§ 20. Sanskrit. The alphabet is as follows:

a ā ī ī u ū ṛ ṛ ḷ ē ai o au ḥ k kh g gh ṅ c ch j jh ṇ ṭ ṭh ḍ ḍh ṇ t th d dh n p ph b bh m y r l v ś ṣ s h.

ṛ, ṛ, ḷ are sonants (s. § 18). *ṛ, ṛ* like consonantal *r* are cerebral (cp. *ṭ, ṭh* etc. below), i. e. similar to English *r*; *ḷ* and *l* are dental.

h (visarga) is our spiritus asper.

We indicate the nasal pronunciation of the sonants by *ṁ*, e. g. *aśū-ṁ* 'thread, beam of light', acc. *svādīyāś-am* 'suaviorem', *ṛ, ṛ* = nasalised *ṛ, ṛ*, e. g. in *ṭṛhā-ti* 'he shatters', *nṛś-ca* 'viros-que'.

The voiceless aspirate explosives *kh, ch, ṭh, th, ph* and the voiced aspirate explosives *gh, jh, ḍh, dh, bh* are to be pronounced as explosives followed by an *h*, but cp. however Whitney's Skr. Gram. § 37.

The palatals *c, ch, j, jh* are generally pronounced as (compound) *tsh*-sounds, e. g. the initial sounds of *ca* 'and' and *jāna-s* 'creature' like the initial sounds of Italian *cento* and *gente* or those

of English *church* and *judge*. But they were simple sounds, similar to Mod.HG. *k* and *g* before palatal vowels, e. g. in *kind*, *gift*.

The cerebrals (cacuminals) *t*, *th*, *d*, *dh* are uttered with the tip of the tongue turned up and drawn back into the dome of the palate.

ɲ is the guttural, *ɲ* the palatal, and *n* the cerebral nasal.

y = *i*, *v* = *u* or spirantal *v*, s. §§ 18. 127. 161.

s is like Mod.HG. dental *s*, cp. *ásti* and Mod.HG. *ist*. On the other hand *ś* and *ṣ* are *sh*-sounds; *ś* is the palatal and *ṣ* the cerebral *sh*-sound; *ś* is thus the softened *ś* (*sz*) found in Slavonic and Lithuanian.

h is pronounced like our *spiritus asper*; it was however a voiced sound, the character of which is doubtful, cp. Whitney's *Skr. Gram.* § 65.

§ 21. Iranian.

1. Avestic.

The vowels are: *a i u e ɛ o*

ā ī ū ē ȳ ȳ̄.

e, *ē* represent the open and *ɛ*, *ē̄* the close *e*-vowel, *ā* a dull *a* sound approaching to *ō*. *ȳ* is the nasal vowel of *a* and *ā* (§ 200). *y* = *i* or spirantal, *v* = *u* or spirantal (§§ 18. 127. 161).

Diphthongs: *aɛ* *oi*, *ao* *ēu*, *ai* *au*. *aɛ*, *ao* may be pronounced like the *ai*, *au* in the Middle German pronunciation of *kaiser*, *haus* etc. (cp. Bœot. *ae* and Ion. *ao* § 96, Lat. *ae* § 97).

Liquid: *r*. Nasals: *ɲ* guttural, *ɲ* is palatalised *n* (§ 200), *n* dental, *m* labial; the value of *ɲ̄* and *ñ* is doubtful (§ 558, 3).

Explosives: *k c t p*, *g j d b*. *c* and *j* are like *Skr. c* and *j* (§ 20).

Spirants: *x* = Mod. HG. *ch* in *dach*, to which the corresponding voiced sound is *γ*. *ȳ̄*, a palatalised sound, seems to have been similar to the Mod. HG. *ch* in *ich*. *s* = our voiceless *s* in *nest*, *z* = Fr. *z*. *þ* = Mod. Gr. *θ* and our *th* in *thin*, *ð* = Mod. Gr. *δ* and our *th* in *then*. *f*, *w* = our *f*, *v*. *ś* is our *sh*, *z* the corresponding voiced sound = Fr. *j*. *ś̄* = *Skr. ś̄*. The pronunciation of *ś̄*, *þ̄*, *ð̄* cannot be more exactly defined.

h is our spiritus asper (not = Skr. *h*).

2. Old Persian.

Vowels. *a i u, ā ī ū. y = i* or spirantal (§ 127), *v = u* or spirantal (§ 161). *y* and *v* were not pronounced in words ending in *-iy, -īy, -uv, -ūv*. Final *-hy* is to be pronounced as *-hi*.
Diphthongs: *ai au, āi āu*.

Liquids: *r, l*.

Nasals: *n, m*.

Explosives: *k c t p, g j d b* as in Avestic. *d* had also the value of *ḍ* (§ 402).

Spirants: *x, s, z, ḫ, f, š* as in Avestic. The value of *š* is not clear (§ 261).

h = Av. *h*.

Difficulties are caused by *iy, uv, īy, ūv*, which in certain special cases represent *y* and *v*, cp. §§ 125. 159. 558, 3.

Rem. The peculiar character of Old Persian cuneiform letters makes it, in some respects, difficult to decipher the words rightly. A syllable consisting of a consonant and a short vowel (*a, i, u*) was represented by one sign (*da, di, du*). Medially and finally the letters *a, i, u*, which initially expressed both *a, i, u* and also *ā, ī, ū*, were added to the corresponding sign to express length of vowel, e. g. *da + a = dā, di + i = dī*. A consonant which was not followed by a vowel, was also always represented by a syllabic sign, e. g. *pa + a + ra + sa + ma = pārsam* (acc. sg. 'a Persian'). Consequently in order to express a final consonant + *a*, an extra letter *a* was added at the end. Therefore, e. g. *-ma + a (-mā)* might mean both *-mā* and *-ma*. The letters *i, u* were usually added again to the signs for consonant + *i*, or *u*, so that e. g. *vi + i + sa + ma* may be read either as *visam* or *visam* and thus we are not able to make a clear distinction between *i, u* and *ī, ū*. Cp. Bartholomae Handbuch p. 5 f. § 21 rem. 1. § 24 rem. 1.

§ 22. Armenian¹⁾.

Vowels. *a, u, i, o, ē, ē̄. ɛ* is an indefinite vowel somewhat resembling German *ö*. Pronounce *y, v* as *i, u* (§ 18).
Diphthongs: *ea, ai, oi, au, iu*.

Liquids: *r, ř; l, λ*. The difference in the pronunciation has not been determined. Nasals: *n, m*.

1) In the transcription of this language we entirely follow Hübschmann. Cp. his treatise 'Die Umschreibung der iranischen Sprachen und des Armenischen' (1882) p. 31 ff.

Explosives: *k t p, g d b. ð t þ* are aspirate tenues.

The Affricatae *č ċ ĵ, c ċ j* may be pronounced as *tš thš dž, ts ths dz*¹⁾.

Spirants. *x* is a deep guttural *ch* like the *ch* in Scot. *loch*. *s* and *z*, the latter = Fr. *z*. *š* and *ž*, the former a voiceless, the latter a voiced *sh*-sound.

h = our spiritus asper.

§ 23. Umbrian-Samnitic. The monuments of this dialect-group are almost exclusively inscriptions, which are written partly in the native, partly in the Latin and also occasionally in the Greek alphabet. We reproduce the native writing by spaced Roman type, whereas those words which have come down to us written in the Latin alphabet are printed in italics.

The Umbrian native alphabet does not possess any special letters for *o, g* and *d*, but represents them by *u, k* and *t*.

The *c*, in monuments written in Latin characters, must always be pronounced as *k*.

The sibilant (§§ 387. 502), which arose from *k* before palatal vowels and which we represent by *'s* and *s* (*s*), may be pronounced like Skr. *ś*. The precise pronunciation of this sound, given by *d* in the native alphabet, and by *'S* (or *S*) in the Latin, is not known.

The modification of *d* (§ 369), which on the tables written in Latin is represented by *rs*, and also occasionally simply by *r* or *s*, has the sign *q* in the native alphabet. It was probably a strongly spirantal *sh*-kind of *r*, similar to Czech *ř*. We transcribe this Umbrian symbol with *ř*, and it may be pronounced like Czech *ř*.

Pronounce *z* as *ts*.

h occurs in both kinds of writing as sign of vowel lengthening, e. g. *kumnahkle* read *kumnākle*, *spahmu* read *spāmu*. On tables written in Latin this sign also appears between a double vowel which in itself already indicates vowel length, e. g. *spahamu* beside *spahmu*.

1) More will be found on the pronunciation of these sounds in Hübschmann's work quoted above p. 35 rem. 3.

Oscan *í* is a close *e*, in the function both of a sonant, e. g. *íst* 'est', and a consonant, e. g. in the diphthong *aí*; *ú* is a close *o*.

Pronounce *z* as *ts*, e. g. *húrz*, *az*, *keenzstur* (*nzs* = *ntss*, cf. *kvaísstur*), *Vezkeí*. But *z* is a voiced *s* (Fr. *z*), e. g. *egmazum*.

In Umbrian-Samnitic we uniformly omit the mark of length over vowels. We write e. g. *matrer* 'matris', although *ā* was undoubtedly spoken (§ 105). This plan has been adopted because the cases are too numerous in which the quantity of the vowel can not be determined with certainty.

§ 24. Old Irish writing, a variety of Latin, presents many diphthongs and triphthongs which were in reality only monophthongs and diphthongs. E. g. the *i* in *eich* 'of a horse' and in *tuaith* 'to the people' only marks the *i*-timbre of the following consonant. Hence some write *e'ch tua'th*. S. § 640.

c is everywhere to be pronounced as *k*. On the pronunciation of *c* and *t* compare moreover § 212 rem. and §§ 513. 658.

ch, *th*, *ph* denote the guttural, interdental, labial voiceless spirants (*χ*, *þ*, *f*), s. § 514. *th* occasionally also stands for the voiced interdental spirant *ð*. *g*, *d*, *b* are both voiced mediae (§ 519) and voiced spirants *ǵ*, *ḍ*, *ḃ* (§ 522), *g* and *d* are even also used for the voiceless spirants *χ* and *þ* (§ 514). In Middle Irish *gh*, *dh*, *bh* took the place of *g*, *d*, *b* as signs for the voiced spirants; after the manner of Modern Irish we pronounce *gh* and *dh* before or after a palatal vowel like our *y* and before or after other vowels as *ǵ*.

ś is *h*. *ḟ* is silent. *mḥ* is a nasalised labial spirant.

Rem. In the Britannic dialects *u* has the sound of *ū*, in the greater part of Wales that of *i*. So far as Cymric is specially concerned, it may be remarked that *y* denotes partly a vowel, similar to that in the English word *fur*, and partly = Cymr. *u*; *w* is partly a sonantal vowel *u*, and partly *u*; *ch*, *th*, *ff* (*ph*) are voiceless, and *dd*, *f* voiced spirants; *m*, *n*, *r*, *l* are voiced, *mḥ*, *nḥ*, *rḥ*, *ll* voiceless. These values apply in the first instance to the living language only.

§ 25. Gothic.

ai is a short open *e*, and *au* a short open *o*. On the other hand *ái* and *áu* are to be pronounced as diphthongs. Antevocalic *ai* and *au* (e. g. *saian* and *staua*) were probably the long vowels to *ai* and *au*, i. e. open \bar{e} and open \bar{o} (§§ 142. 179). Gothic writing leaves both *ai*, *ái*, *ai* and *au*, *áu*, *au* undistinguished.

ei = \bar{e} . \bar{e} and \bar{o} were close. *v* = *u*, *j* = \bar{i} (§ 18).

The guttural nasal (\bar{n}) was generally (after the analogy of Greek) expressed by *g* before homorganic explosives, e. g. *laggs* 'long', *drigkan* 'to drink', seldom by *gg* (*driggkan*) or *n* (*bringan* 'to bring').

q (e. g. *riqis* 'darkness') = Lat. *qu*.

d initially and medially after *n*, *l*, *r*, *z* was a voiced explosive, whereas medially after vowels it was the interdental spirant \bar{d} . *b* initially and medially after consonants was a voiced explosive, whereas medially after vowels it was the labial spirant \bar{b} . A corresponding difference is also to be assumed for *g*. S. §§ 530. 538 and cp. also §§ 531. 539.

\bar{p} is a voiceless interdental, *f* a bilabial spirant, *z* = Fr. *z*.

Pronounce initial *h* before vowels (e. g. *haban* 'to have') like our spiritus asper, in other cases (e. g. *hláifs* 'loaf, bread', *raihts* 'right', *táuh* 'I led') it is a spirant like German *ch*.

§ 26. Lithuanian.

Vowels: *a e i u*, $\bar{a} \bar{e} y \bar{u}$, $\acute{e} o$. *e* and \bar{e} are to be pronounced very open. *y* = \bar{e} . \acute{e} and *o* are very close and always long (hence we omit the sign of vowel length). The vowels $\bar{a} \bar{e} \bar{i} \bar{u}$ do not differ in pronunciation from *a e i u*; initially and medially they are always to be pronounced long, finally they are partly long, partly short. The little hook under a vowel indicates that the vowel was originally followed by a nasal, this sign has therefore only an etymological value (§ 218).

Diphthongs: *ai ei au*, $\bar{a} \bar{e} \bar{i} \bar{a} \bar{u}$, *ui oi ē ō*. The *o* in *oi* is to be pronounced long; this diphthong occurs in locatives as *toi* (from the feminine pronominal stem *to*- 'this'), where it is usually

written *-oj* (*toj*). Pronounce *ẽ* as *ĩẽ* with a very open *ẽ* or as *ĩą*. Pronounce *ũ* as *ũą* with a very open *ą* or as *ũą*.

When the accent is on a short vowel, it is represented by ` e. g. *pik̃tas* 'bad'. In cases where ' and ~ are placed over simple vowels to indicate the accent, these vowels are always to be read long, e. g. *vārpa* 'ear of corn', *gēras* 'good'. In like manner *ái áu éi* are also to be read as *ái, áu, éi*. More will be found on the accent signs ' and ~ in § 691. *j* is to be pronounced as *ĩ*, and *v* as a spirant (English *v*)¹⁾.

Liquids: *r, l*. On the difference between *l* and *l̃* see 'Palatalisation of Consonants' below.

Nasals: *n, m*. *n* is to be pronounced as *ɲ* (guttural nasal) before *k* and *g*, e. g. in *rankà* 'hand'.

Explosives: *k t p* (voiceless), *g d b* (voiced).

Spirants: *s, z* (= Fr. *z*), *sz* (= our *sh*), *ž* (voiced *sh*, Fr. *j*).

c = *ts*, *cz* = English *tsh*.

Palatalisation of Consonants. All consonants (with the exception of *j*) are liable to palatalisation. This uniformly takes place before palatal vowels (*e, é, i, y*): the *t, n, r, ž* in *svēte, kúne, múre, bérže* (voc. sg. of the stems *svēta*- 'world', *kúna*- 'body', *múra*- 'wall', *bérža*- 'birch') are therefore not to be pronounced the same as in *svētas, kúnas, múras, béržas* (nom. sg. of the same stems). When palatalised pronunciation takes place before non-palatal vowels, it is indicated by an *i* placed after the consonant, but this *i* must neither be read as syllabic *i* nor as *ĩ*, e. g. *kiaũlė* 'pig', *pióviau* 'I cut' (past t.), *piáusiu* 'I shall cut', *nėsziau* 'I shall carry'. We express the non-palatalised *l* by *l̃*; it is the 'guttural' *l̃*, which in those districts bordering on Poland, has a great resemblance to Polish *l̃*, and often sounds like *ɥ*, s. § 280. *l̃* is the palatalised liquid; we therefore write *galũ* 'I can', not *galĩũ*²⁾.

1) This fixing of the pronunciation of *v* is on the authority of Schleicher, who had Prussian Lithuanian in mind. It is pronounced *ɥ* in one part of Russian Lithuania.

2) In this mode of writing we have followed Juskiewicz.

§ 27. Old Church Slavonic (Old Bulgarian).

a e o i ǐ u ŭ y ě. *e* and *o* are open. Pronounce *ǐ* as a very close *ě*; *ŭ* somewhat the same as the *u* in English *but*; *ě* as *ē*; *y* as *ȳ*. On the quantity of *a*, *i*, *u*, *y*, *ě* cp. § 615. *ę* and *ą* are nasal vowels, the former = Fr. *in*, the latter = Fr. *on*. *j* = *i*, *v* = *u* or spirantal (§ 186).

ch like German *ch* in *ach*, *ś* like English *sh*, *ž* like Fr. *j*, *z* like Fr. *z*.

c = *ts*, *č* = *tsh* (Lith. *cz*).

Rem. We use *pn*, *pr* to denote the prim. Baltic-Slavonic representation of Indg. *p*, *r*. See §§ 248. 302. Pronounce the *p* as a sound lying between *i* and *e*.

HISTORY OF THE SEPARATE PRIMITIVE INDO-GERMANIC SOUNDS¹⁾.

THE VOWELS²⁾.

A. THE VOWELS AS SONANTS.

§ 28. The Indo-Germanic parent-language had *i ī*, *u ū*, *e ē*, *o ō*, *a ā*, *ə*.

e, *o* (both long and short) were probably pronounced open. Hence some scholars write them *á*, *â*. On the representation

1) Cp. § 599.

2) Amelung die Bildung der Tempusstämme durch Vocalsteigerung im Deutschen (1871); Ztschr. f. deutsch. Altert. XVIII 161 ff., Kuhn's Ztschr. XXII 369. — Osthoff in Paul-Braune's Beitr. III 1 ff., Morph. Unt. I 207 ff., IV 1 ff., Zur Gesch. des Perf. (1884). — The Author in Curtius' Stud. IX 361 ff., Kuhn's Ztschr. XXIV 1 ff., XXVII 201 ff., Morph. Unt. III 91 ff., Zum heutigen Stand der Sprachwissensch. 98 ff. — Fick in Bezenberger's Beitr. II 193 ff., III 157 ff., IV 167 ff., IX 313 ff., Gött. gel. Anz. 1880 p. 420 ff., 1881 p. 1425 ff. — Collitz in Bezenberg. Beitr. II 291 ff., III 177 ff., X 1 ff. — Ferd. Masing Das Verhältniss der griechischen Vocalabstufung zur sanskritischen (1878). — Verner in Morph. Unt. I 116 ff. — G. Meyer Kuhn's Ztschr. XXIV 226 ff. — Paul in Paul-Braune's Beitr. VI 103 ff. — Kluge Beitr. zur Gesch. d.

of these vowels cp. the Author in Curtius' Stud. IX 367, Morph. Unt. II p. III, Kuhn's Ztschr. XXVII 201 ff.

The value of *ə* can not be more precisely defined. It may be pronounced as *ä*, that is, an *a* somewhat approaching the sound of *e*.

The regular representation of these prim. Indg. vowels in the individual developments is as follows:

Idg.	Ar.	Arm.	Greek	Lat. (in accented syllables).	O. Irish (in accented syllables).	Germanic	Baltic-Slavonic	
						Teutonic	Lith.	O. Bulg.
<i>i</i>	<i>i</i>	<i>i</i>	<i>i</i>	<i>i, e</i>	<i>i, e</i>	<i>i, e</i>	<i>i</i>	<i>ī</i>
<i>ī</i>	<i>ī</i>	<i>i</i> (p)	<i>ī</i>	<i>ī</i>	<i>ī</i>	Got. <i>ei</i> i. e. <i>ī</i> , OHG. <i>ī</i>	<i>y</i> i. e. <i>ī</i>	<i>i</i>
<i>u</i>	<i>u</i>	<i>u</i>	<i>u</i> (Boeo- tian etc. <i>u</i>)	<i>u</i>	<i>u, o</i>	<i>u, o</i>	<i>u</i>	<i>ū</i>
<i>ū</i>	<i>ū</i>	<i>u</i> (p)	<i>ū</i> (Boeo- tian etc. <i>ū</i>)	<i>ū</i>	<i>ū</i>	<i>ū</i>	<i>ū</i>	<i>y</i>
<i>e</i>	<i>a</i>	<i>e, i</i>	<i>ε</i>	<i>e</i>	<i>e</i>	<i>e, i</i>	<i>e</i>	<i>e</i>
<i>ē</i>	<i>ā</i>	<i>i</i>	<i>η</i>	<i>ē</i>	<i>ī</i>	Got. <i>ē</i> , OHG. <i>ā</i>	<i>ē</i>	<i>ē</i>
<i>o</i>	<i>a, ā</i>	<i>o, (u)</i>	<i>o</i>	<i>o</i>	<i>o</i>	<i>a</i>	<i>a</i>	<i>o</i>
<i>ō</i>	<i>ā</i>	<i>u</i>	<i>ω</i>	<i>ō</i>	<i>ā</i>	Got. <i>ō</i> , OHG. <i>uo</i>	<i>ū</i>	<i>a</i>
<i>a</i>	<i>a</i>	<i>a</i>	<i>α</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>o</i>
<i>ā</i>	<i>ā</i>	<i>a</i>	<i>α</i>	<i>ā</i>	<i>ā</i>	Got. <i>ō</i> , OHG. <i>uo</i>	<i>ō</i>	<i>a</i>
<i>ə</i>	<i>i</i>	<i>a</i>	<i>α</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>a</i>	<i>o</i>

german. Conjugation 1 ff. — De Saussure Mémoire sur le système primitif des voyelles dans les langues indo-européennes (1879). — Mahlow Die langen Vocale A, E, O in den eur. Sprachen (1879). — Möller in Paul-Braune's Beitr. VII 482 ff. — Bezzenberger in his Beitr. V 312 ff. Fröhde Bezzenberger's Beitr. V 265 ff., VI 161 ff., VII 97 ff. — J. Schmidt in Kuhn's Ztschr. XXV 1 ff. — Bartholomae Ar. Forsch. I 25 ff. — Bloomfield American Journal of Philology I 281 ff. — W. Schulze Kuhn's Ztschr. XXVII 420 ff. — Curtius Zur Kritik der neuesten Sprachforschung 90 ff. — Delbrück die neueste Sprachf. 30 ff. — Hübschmann Das indogerm. Vocalsystem (1885). — Bremer in Paul-Braune's Beitr. XI 262 ff.

Indg. *i*.

§ 29. Indg. **i*- weak present-stem of rt. *ei*- 'go'; 1. pers. pl. Skr. *i-más*, Gr. *ἵμεν*. Indg. **uid*- weak perfect stem of rt. *ueid*- 'see, know': 1. pers. pl. Skr. *vid-má*, Hom. *ἴδ-μεν*, Goth. *vit-um*. Indg. **dīu*- 'sky': loc. sing. Skr. *div-i*, Gr. *Δι-ι*. Indg. **i*- pronoun of the 3. pers.: Skr. neut. *i-d-ám*, Lat. *i-s i-d*, Goth. *i-s* 'he' *i-t-a* 'it'. Indg. *-i*- in reduplicated syllables, e. g. pres. Skr. *tī-ṣṭhāmi* (3. pers. sing. *tīṣṭhati*), Gr. *ἴστημι*, Lat. *si-stō* from rt. *stā*- 'stand', Skr. *bī-bhēmi*, OHG. *bi-bēm* from rt. *bhej*- 'tremble at, be in fear'.

Nominal suffixes Indg. *-i*-, *-ti*-, *-ni*-, e. g. Skr. *ávi-ṣ* 'ovis', Gr. *οἶς* *oĩs*, Lat. *ovi-s*, O.Ir. dat. pl. *tri-b* 'tribus', Goth. dat. pl. *gasti-m* 'to guests', Lith. *akl-s* 'eye', O.Bulg. *patŭ* 'way' fr. **patŭ-s* (§ 588, 7). Superlative suffix Indg. *-is-to*-, e. g. Skr. *svād-iṣṭha-s* Gr. *ἡδ-ιστο-ς* Goth. *sut-ista*- 'suavissimus', cp. also Lat. *mag-is-ter*. Locative suffix Indg. *-i*, e. g. Skr. *div-ti*, Gr. *Δι-ι*, Lat. *rūr-e*. Personal ending Indg. *-mi*, e. g. Skr. *ás-mi*, Gr. *εἰμι* fr. **es-mi* (§ 565), Lith. *es-mi*, O.Bulg. *jes-mŭ*.

§ 30. Aryan. Interrogative and indefinite pronoun *ci*-, Skr. *ci-d* Av. *ci-p* O.Pers. *ciy* (read *ci*), enclitic particle: Gr. *τίς* *ti-s*, Lat. *qui-s*, Indg. **qi-s* **qi-d*. Skr. *vīṣ-* O.Pers. *viṣ-* 'clan', Indg. **uiḱ*-. cp. O.Bulg. *vīs-ŭ* 'vicus' from **uiḱ-i-s*. Skr. *dīṣṭi*- 'order, direction', Av. *ā-diṣti*- 'assignment': OHG. MHG. *in-ziht* 'accusation', Indg. **dīkti*-. Skr. *ásti* Av. *asti* O.Pers. *astiy* (read *asti*) 'is': Gr. *ἔστι* O.Bulg. *jestŭ* 'is', Indg. **és-ti*. Skr. *ihí* Av. *iđi* O.Pers. *iđiy* (read *iđi*) 'go': Gr. *ἴθι*, Indg. **i-dhí*.

§ 31. Armenian *e-liḱ* 'he left': Gr. *ἔ-λιπε*, from rt. *leiḡ*-. *e-git* 'he found' (*g* from *u*, § 162): Skr. *á-vid-a-t*, from rt. *ueid*-. *tiv* 'day': Skr. instr. *divā* 'by day'. Stem *eri*- 'three' = Indg. **tri*- (for the initial forms cp. §§ 263. 483), instr. *eri-vḱ*-. cp. Skr. *tri-bhīṣ*.

i, except in final syllables, disappeared e. g. *gt-ane-m* 'I find', *lḱ-ane-m* 'I leave'. Cp. § 632.

§ 32. Greek. *πιθ-έ-σθαι* 'to obey': Lat. *fid-ēs*, from rt. *bhejdh*-. *di*- 'two' (from **di-*, § 166) in *δίς*, *δι-πovς*: Skr. *dvi*-, Lat. *bi*-, Ags. *twi*-, OHG. *zwi*-, Indg. **dwi*-. *ἐπι* 'on': Skr. *ápi*.

The *ε* in Elean πόλερ (= Att. πόλις) beside πόλιν and in Thessal. κρεννέμεν (inf., cp. Lesb. κρέννην, Att. κρένειν), Ὑβρίστας (= Att. Ὑβρίστης) seems to have arisen through the proximity of the *ρ*.

§ 33. Italic. Lat. *qui-s*, Umbr. Osc. *pi-s*: Gr. τίς. Lat. *mi-nu-ō mi-nor*, Osc. *mi-nstreis* 'minoris': Skr. *mi-nō-mi* Gr. *μνύ-ω μνύ-θω* 'lessen', Goth. adv. *mi-ns* 'minus', O.Bulg. *мъ-nijъ* 'minor', from rt. *mei-*. Lat. *tri-* in *tri-bus tri-plex*, Umbr. *tri-pler* 'triplex': Skr. *tri-*, Gr. *τρι-*.

Already at an early period Lat. *i* had a tendency towards *e* close (open *i* or *i* pingue), hence e. g. the spelling *tempestatibus* (C. I. L. 32) for *tempes-tāti-bus* (cp. Skr. *ariṣṭātāti-bhyas* dat., abl. pl. of *ariṣṭā-tāti-* 'unimpairedness'). This was especially so before vowels (where *i* had partly arisen from *i*, see § 135), hence the inscriptional forms *fileai*, *Oveo* for *filiai*, *Ovio*. This intermediate sound was also represented by *ei*, e. g. *fileiai*.

e purum arose from *i*:

1. Before *r* = Indg. *s* (§ 569). *serō* from **si-sō*: Gr. ἱημι, original form **si-sē-mi*, from rt. *sē-* 'throw, sow'. *cineris* fr. **cinis-is*, cp. *cinis-culu-s*.

2. Finally. *mare* fr. **mari*, *leve* fr. **levi*, cp. *mari-a mari-timus*, *levi-bus levi-ter*, and Gr. neut. ἵδι 'acquainted with', Skr. *bhūri* 'multum'. Loc. sing. *rūr-e*: cp. Skr. *div-i*. *ante* fr. **anti* cp. *anti-stō*, Gr. ἀντί, Skr. *ánti*.

Rem. 1. On the other hand the *e* in the suffix of the acc. case sing. of *ei*-stems as *ignem* (Skr. *agnī-m*, Lith. *ugni*), *mortem* (Skr. *mṛti-m*, O.Bulg. *sū-mrūt*), *facilem* (cp. *facili-a*), was borrowed from such forms as *ped-em* (*-em* = Indg. *-n*, §§ 224, 238), as *siti-m*, *parti-m* etc. show. The *e* in *jū-dex*, *in-dex* beside *-dic-is* etc. (from rt. *deṣ-* 'direct', Skr. *dīṣ-* 'order, direction', Gr. *δι-η*) and the *e* in *comes* by the side of *comitis* etc. (stem *com-i-t-* 'accompanying', from rt. *ei-* 'go') has also probably arisen through the influence of analogy; cp. *opi-fex* beside *faciō*, *super-stes* beside *status* etc.

The combination *-ri-*, between consonants in unaccented syllables (according to the principle of accentuation in primitive Latin, § 680), became *r*, which passed into *er*. *in-certu-s* fr. **in-*

cri-to-s = Gr. ἄκριτο-ς, *sé-vernō* fr. **sē-crinō*. *abs-tergō* fr. **abs-trigō* (cp. Gr. τρίβω); later also uncompounded *vernō*, *tergō*, cp. § 65 rem. 2. In the same manner, perhaps, also arose the forms *cón-testor testor testāmentu-m* (*test-* from **terst-*, cp. § 269) beside Osc. *tristaamentud* abl. 'testamento'. The process was the same as that whereby **ágro-s* (Gr. ἀγρός) became **agrs* **agers* and lastly *ager* (§ 623 rem. 1. 655, 9). This process may be dated back to the Italic primitive period. Cp. also § 633.

Rem. 2. *ācri-bus ācri-tās* etc. are new forms, made by analogy.

The orthographical fluctuation in Umbrian between *i* and *e*, as neut. *piŕ-e pirs-e*, *peŕ-e pers-e* 'quid, quodcunque'; imper. *aha-tripursatu*, *ah-trepuratu* 'abs-tripodato'; acc. sing. of *eī*-stems in *-i-m* and *-e-m*, and the Oscan representation of this sound in its native alphabet by *í*, e. g. *píd* 'quid', *slagí-m* acc. sing. of the stem *slagi-* 'locus', show that *i* was pronounced open in both dialects.

§ 34. Old Irish. *fiss* 'knowledge' from prim. Ir. **uissu-s*, that is, **uid+tu-s*, root. *ueīd-*. *fid* 'tree' from prim. Kelt. **uidu-s* (Gall. *Vidu-casses*): OHG. *witu* 'wood'. Gen. sing. *fir* fr. **firi* from Indg. stem **ui-ro-* 'man': Lat. *vir*, Goth. *vair* fr. **uira-z* (§ 35).

Cp. also Gall. *Ambi-gatus* (Liv.), *Ἀμφι-δαυοί* (Ptol.): Gr. ἀμφί; Gall. *tri-* 'three' in *tri-garanus*, O.Ir. dat. pl. *tri-b* 'tribus'.

i became *e* (by assimilation), when an *a* or *o* stood in the following syllable e. g. *fer* nom. sg. fr. original **uiro-s*, *fedo feda* gen. sg. to *fid*.

In syllables with secondary accent *i*, so far as it did not entirely disappear (§§ 634. 657), became an irrational vowel, whose quality regulated itself after the timbre of the following consonants. E. g. beside the simple *fiss* stood the compound *cúbus* 'conscientia' fr. **cón-f(i)uss*, that is, the *u*-timbre of the *ss* (presupposed through the older form **uissu-s*) had caused the preceding irrational vowel to become *u* in the compound, whilst it left the accented *i* in the simple *fiss* unchanged. The *u* in *fuuss* beside *fiss* merely indicates the *u*-timbre of the *ss*.

§ 35. Germanic. Goth. *vidurō* OHG. *wituwa* OS. *widowa* Ags. *widewe* 'widow': Skr. *vidhāva-*, Lat. *vidua*, O.Ir. *fedb*, O.Bulg. *vidova*. Pret. 1. pers. pl. Goth. *bitum* OHG. *bizzum* O.Icel. *bitom* 'we bit': Skr. *bi-bhidimā*, Lat. *fidimus*. Goth. *fisks* OHG. and OS. *fisk* O.Icel. *fiskr* 'fish': Lat. *piscis*. Pronominal stem *hi-* 'this', Goth. dat. sing. *hi-mma* 'huic' adv. *hi-drē* 'huc', Engl. *hither* : Lat. *ci-* in *ci-ter ci-tra*, Lith. *szì-s* O.Bulg. *sĭ* 'hic' (§ 84. rem. 1), Indg. **ki-*.

In Gothic *i*, before *h* and *r*, became *ai*, that is, open *e*. *maihstus* 'dung': OHG. *mist* 'dung', Ags. *mist* 'misty vapour', Skr. *mih-* Gr. *μίχλη* O.Bulg. *mĭgla* Lith. *miglà* 'fog'. *vair* (pl. *vairōs*) 'man': Lat. *vir*, O.Ir. *fer*, Indg. **ui-ro-s*.

In High German, the Indg. and Prim. Germanic *i* became *e* through the influence of a following *a*, *e* or *o* (cp. Irish). OHG. *wehsal* 'change': Dutch *wissel* O.Icel. *vīxl* 'change', prim. Germ. stem **uixsla-*, Lat. *vic- vic-ēs* 'change', Gr. *φέλω* 'yield'. *lecchōn* 'to lick': Ags. *liccean* 'to lick', Gr. *λχνεύω* 'I lick'. *wer* 'man': Goth. *vair*. *wessa* 'I knew': Goth. *vissa* 'I knew', pret. of OHG. *wizzan* Goth. *vitan* 'to know'. To this rule there are a number of exceptions of which some are difficult to explain. It may be assumed that they have arisen through form-association, e. g. in *-zigan* 'pulled together' by the side of pret. pl. *zigum* opt. *zigi* from rt. **deik-* 'show', and in *wissa* (= *wessa*) by the side of *wissum*, *wissi*. Cp. Paul's article in Paul and Braune's Beitr. VI 82 ff.

Rem. Some scholars assume that *i*, already in prim. Germanic, passed into *e* through the influence of an *a* or *o* of the following syllable, e. g. in OHG. *wehsal*. The difficulties, however, opposed to this theory seem to me greater than those presented by the hypothesis given above.

§ 36. Baltic-Slavonic. Lith. *pikis* (gen. *pikio*) O.Bulg. *pīklū* 'pitch': Lat. *pix*, Gr. *πίσσα* (from **πικια*, § 489) 'pitch'. Lith. *līpū* (pret. *lipaū*) 'I stick' (intr.), O.Bulg. *pri-līnq* from **-līpnq* (§ 545) 'I stick to, remain hanging': Skr. *limpāti* 'he smears', Gr. *λίπος* (neut.) 'fat'. Lith. *deszinē* 'right hand', O.Bulg. *desīnū* 'dexter': Skr. *dākṣiṇa-* 'dexter'. Lith. *tri-sè*, O.Bulg. *trī-chū*: Skr. *tri-śú*, Gr. *τρι-σί*, loc. pl. from *tri-* 'three'.

In one portion of the Lithuanian dialects *i* is at the present day pronounced very open; hence such frequent spellings as *lepau lepo* = *lipaũ lipo* 1. and 3. pers. sing. pret. of *limpũ*.

Slavonic *ĩ* must, already in prim. Slav., have been a reduced sound, with a quality approaching *e*.

In Modern Slavonic developments *ĩ* became a full vowel in closed syllables (such syllables often arose through the falling out of an *ĩ* or *ũ* in the following syllable), Russ. *e*, Serv. *a*: e. g. Russ. *den'* Serv. *dan* = O.Bulg. *dĩnĩ* 'day'; Russ. *čest'* Serv. *čast* = O.Bulg. *čĩstĩ* 'honour'. On the other hand final *ĩ* as a sonantal vowel disappeared in every case; e. g. Russ. *dam* = O.Bulg. *da-mĩ* Lith. *dũ'-mi* 'I give' (Balt.-Slav. original form **dōdmi* from rt. *dō-*, Gr. *δίδωμι*, § 547). Medial *ĩ* also, as a rule, disappeared in open syllables, e. g. Russ. *vdová* = O.Bulg. *vidova* 'widow'; Serv. *dne* = O.Bulg. *dĩn-e* gen. sing. of *dĩn-* 'day'. All these modifications can be traced as far back as the period of Old Church Slavonic. On the one hand they follow from such double spellings as *trechũ trĩchũ*, *pqtemĩ pqtĩmĩ* (instr. sing.), *pqtechũ pqtĩchũ* loc. pl. from *pqtĩ* 'way', *denĩ dĩnĩ* 'day', *vesĩ vĩsĩ* 'entire', *levũ lĩvũ* 'lion' — these forms can only be understood by assuming that the final *-ĩ* and *-ũ* were no longer syllabic (because *e* did not become *ĩ* e. g. in *pqtĩmi* Instr. pl.)¹⁾ — on the other hand from such double spellings as *vsi vĩsi* gen. 'vici' (cp. Skr. *viś-* 'clan'), *psati pĩsati* 'to write' (cp. Skr. *piś-* 'adorn', rt. *peĩk-* 'cut, cut out'). The same laws hold for *ĩ* in the combinations *ĩn*, *ĩm*, *ĩr* from Indg. *yn*, *ym*, *yr* (§§ 252. 305). E. g. pres. O.Bulg. *mĩnq* 'I press, tread under foot': Lith. *minũ* 'I tread', original form **myn-ō*, rt. *men-*; thence Russ. *mnu*. O.Bulg. *tĩmĩnica* 'prison' from *tĩmĩnũ* 'dark', adj. to *tĩma* 'darkness' from **tym-ā* rt. *tem-*; thence Russ. and also already O.Bulg. *temnica*. O.Bulg. *tĩrq* 'tero' original form **tȳr-ām*, thence Russ. *tru*. The analogous treatment of *ũ* § 52 may also be compared with these modifications of *ĩ*.

¹⁾ Cp. also such spellings as *legũko* (i. e. *legko*) for *lĩgũko* 'leve, facile' (§ 52).

ǐ before *j* became *i* in the period of Old Church Slavonic. *přija-znĭ* and *prija-znĭ* 'love, 'good will': Skr. *priyá-* 'dear', Goth. *frijōn* 'to love', Indg. adj. **priǵó-* 'dear'. Gen. pl. *trījĭ* and *trijĭ*: Lith. *trijū* 'trium'. *ǐ* in the combination *-ǐj-* from Indg. *-ei-* (§ 68) underwent the same treatment, e. g. *vĭja* and *vija* = Lith. *vejù* 'I turn, wind', Skr. *váyami*, Indg. **véǵō*. The change of *ũ* to *y* before *j* went parallel to this modification, e. g. *dobryĭ* and *dobryjĭ* 'the good man' (§ 84).

Rem. In the Zographos gospel *ũ* frequently is found for *ǐ* before non-palatal vowels; e. g. *vũdova* 'widow'. Cp. § 252 rem. and § 305 rem.

Indg. *ī*.

§ 37. Indg. **gt-uo-s* 'living': Skr. *jīvā-s*, Lat. *vīvo-s*, Lith. *gyva-s* O.Bulg. *živŭ*. Indg. **pī-uo-*, **pī-uen-*: Skr. *pī-van-* 'swelling (partic.), plump, fat', Gr. *πī-(f)ō-s* *πī-(f)ōv* 'fat, plump'. Indg. **sī-men-*: Skr. *sī-mán-* 'parting of the hair on the top of the head', Gr. *ī-μᾶς* (st. *ī-μav-τ-*) 'a leathern strap, rein', *ī-μov-ιά* 'rope of a draw-well', O.Icel. *sī-me* *sī-mi* 'cord, rope'.

Nominal suffix-form Indg. *-ī-*: Skr. *naptī-ś* 'daughter, granddaughter', *vidúṣī* 'dviā', Lat. *vic-tr-ī-c-s*, Goth. *frijōndi* 'female-friend' from prim. Germanic **frijōnd-ī* (§ 660, 2), Lith. *vil̃kusi* O.Bulg. *vlūkusi* from prim. Baltic-Slav. **u̯lkusī* (§§ 303. 664), fem. particip. pret. act. of Lith. *velkù* O.Bulg. *vlēkq* 'I draw, pull' (rt. *u̯elq-*). Nominal suffix *-īno-*, forming adjectives denoting origin or material: Lat. *haed-īnu-s*, Goth. *gáit-eins* 'kid's', Lat. *su-īnu-s*, O.Bulg. *sv-inŭ* 'pig's', Goth. *sv-ein* (neut.) 'a pig' (cp. *gáitein* neut. 'a young he-goat'), Gr. *χοραx-īvo-s* 'a young raven'. Indg. *-ī* the ending of the Nom. Acc. dual of *ei*-stems: Skr. *pāti* to nom. sing. *pāti-ś* 'master', O.Ir. *faith* (original form **u̯ātī*) to nom. sing. *faith* (original form **u̯āti-s*) 'poet', Lith. *naktī* O.Bulg. *nošti* (prim. Baltic-Slav. **noktī*, § 664, 3) to nom. sing. Lith. *naktī-s* O.Bulg. *noštī* 'night'. Weak form of the optative suffix *-ī-*: Skr. *dviś-ī-māhi* 1. pers. pl. Mid. of *dvēś-mi* 'I hate', Gr. *εἰδεῖμεν* from **εἰδεσ-ι-μεν* to *ἦδεα* 'I knew' from **ἦ-φεῖδ-εσ-α*, Lat. *s-ī-mus*, Goth. *vīl-ei-ma* = Lat. *vel-ī-mus*,

OHG. 1. pers. pl. *s-i-m s-i-n* 'we may be' = Lat. *sīmus*, O.Bulg. *jad-i-mŭ* from *jad-* (*ěd-*) 'eat' (§ 76), cp. Lat. *ed-i-mus*.

Rem. Of all the prim. Indg. vowels *i* is the one which has been least changed in the development of the separate languages.

§ 38. Aryan. Skr. *vī-rá-s* Av. *vī-ra-* 'man, hero': Umbr. *veiro-* 'vir' (cp. § 41), secondary form of Indg. **ui-ro-s* (§ 34), denoted originally, 'endowed with strength', and is related to Lat. *vī-s*. Skr. *jī-rá-* Avest. *-jī-ra-* 'active', imper. 2. pers. sing. Skr. *jīva* O.Pers. *jīva* (read *jīva*) 'live'. Skr. *bṛhat-i-m* Avest. *ber^ezait-i-m* 'magnam, altam', cpf. **bhrgh-ūt-i-m*.

§ 39. Armenian. I do not know any certain examples for the representation of *i*. See, however, *siun* 'pillar' = Gr. *κίων* and *çin* 'milvus' = Gr. *ἰκτινός* in Hübschmann's Arm. Stud. I 49. 53.

§ 40. Greek. *ἰ-ς ἰ-φι* 'strength': Lat. *vī-s*. *ῥό-ς* 'poison' fr. **fīso-ς*: Lat. *vīru-s*, O.Ir. *fī*. *ῥῑγος* 'frost': Lat. *frīgus* (§ 570). *πί-νω* 'I drink', imper. *πί-θι*: Skr. *pī-tá-s* 'drunk, having drunk' *pī-tí-ś* 'draught (of liquids)', O.Bulg. *pi-ti* 'to drink' *pi-vo* (neut.) 'potus, beer'.

§ 41. Italic. Lat. *vīvo-s*, Osc. *bivus* nom. pl. 'vivi'. Lat. *in-clī-nō*, *ac-clī-ni-s*: Gr. *κλῖ-νη κλῖ-τύ-ς*, Skr. *abhi-śri-ṇā-ti* 'leads on, unites with'. Lat. *s-i-mus*, Umbr. 2. pers. sing. *sir* 'sis', Osc. *fefac-i-d* 'fecerit' opt. of redupl. perf. (cp. Skr. 3. pers. sing. opt. pf. mid. *va-ṛt-i-tá* from *vart-* 'roll, turn'); the *-i-* (*-ī-*) in the Umbr. and Osc. forms, as well as in Lat. *sim sīs* (O.Lat. *siem siēs*), has been taken over from the 1. and 2. pers. pl. Osc. *li-mu* 'famem': Gr. *λι-μός-ς*.

In Latin *ei* was also written for this *i*, e. g. *veivos, faxseis*. It was not, however, pronounced as a diphthong, but as a long (probably open) *i*. The old diphthong *ei* in *deicō* (cp. *δείκ-νῦ-μι*), *feidō* (cp. *πείθω*) etc. had become *i*, but the spelling *ei* for this *i* was still retained. At this period the sign *ei* began to be used for the old *i* which had fallen together with *eī* (cp. also the late Greek spelling *ει* for original *i*, as *πολείτης*). Cf. § 65.

The *i* in the Umbr. and Osc. words *sir* and *bivus*, *limu* (quoted above) is to be pronounced long. This quantity can be directly proved in Umbr. *persnihmu persnihimu*, i. e. *persnīmu* (§ 23) 'precamino', depon. 3. sing. imper. from a verbal stem *persnī-*, cp. Lat. *fīnī-re*. It also follows from the spelling *ei* (on tables in Latin alphabet) in *sei* beside *sir si* = Lat. *sīs*, in *veiro* beside *viro* 'viros' (cp. Skr. *vīrā-s* § 38), probably also in *pers-ei* beside *pers-i* 'quid', the ending of which was a demonstrative particle corresponding to the *-ī* in Gr. *ούτος-ī*. This spelling *ei* is to be put on a like footing with the *ei* in Lat. *veivos* and similar forms (see above), and points to an open pronunciation of the *i*. The same quality of the *i*-sound follows for Oscan from *fusid* 'foret, esset' (opt. of the *s*-aorist, cp. Skr. 3. sing. mid. *maq-s-ī-tā* from *man-* 'think'), assuming that the vowel in the end syllable had not been shortened and then become *i*.

§ 42. Old Irish. *li* Cymr. *lliw* 'color, splendor': Lat. *livor*. It is less certain that the *i* in *crīthid* 'emax' = Indg. *i*: Skr. *krī-ndā-ti* 'buys'.

For the treatment of *i* in unaccented syllables see §§ 613. 634. 657, 2. 6.

§ 43. Germanic. Goth. *skeirs* (st. *skei-ra-*) O.Sax. *skīr* O.Icel. *skīrr* 'clear, bright', prim. Germ. **skī-ra-*, related to Gr. *σκιά* 'shadow' or to Lat. *dē-scī-scō* 'I withdraw, depart from'. Goth. *freidjan* 'to spare', OHG. *vriten* 'to foster, pamper', O.Icel. *frīða* 'to adorn, decorate': cp. Skr. *pri-tā-s* 'dear, pleased, joyful, satisfied'. Goth. *sv-ein* OHG. OS. *swīn* Ags. *swīn* O.Icel. *svīn* 'pig': O.Bulg. *sv-inū* Lat. *su-inu-s* 'pig's (adj.)', belonging to a pig'. 1. pers. pl. opt. pf. Goth. *vēs-ei-ma* OHG. *war-i-m* O.Sax. *war-i-n*, O.Icel. *vær-i-m* 'we might be': cp. Skr. 3. sing. opt. pf. mid. *vavrt-ī-tū* (from *vart-*).

It must be observed that *ei* in Goth. always signifies the monophthong *i* (§ 25).

§ 44. Baltic-Slavonic. Lith. *vý-ti* O.Bulg. *vi-ti* 'to wind, turn': Gr. *ἰ-τέα* 'willow, salix' fr. **fī-teā*. Lith. *dovynū* (dual) 'twins': Lat. *bīnī*. O.Bulg. *griva* 'mane': Skr. *grīvā-* 'nape'.

Observe that *y* is the Lith. symbol. for *i* (§ 26).

Indg. u.

§ 45. Indg. **jug-ó-m* 'yoke': Skr. *yugá-m*, Gr. ζυγό-ν, Lat. *jugu-m*, Goth. *juk*, O.Bulg. *igo* fr. **ǵūgo*. Indg. weak stemform **kū-n-* 'dog' (strong stemform **kū-on-*, Skr. acc. sing. *śvān-am*): Skr. gen. sing. *śú-n-as*, Gr. gen. sing. *κν-ν-ός*, O.Cymric nom. pl. *cūn cwn*, Goth. *hun-d-s*, Lith. gen. sing. *szu-ñ-s* fr. **szu-n-es* (§ 664, 2). Indg. **nu* 'now': Skt. *nú*, Gr. *νῦ*, Lat. *nu-diu-s*, O.Ir. *nu no*, OHG. *nu no*, Lith. *nū-gi* 'now then'.

Weak nominal suffixes Indg. *-u-*, *-tu-*, *-nu-*: Skr. *svād-ú-ṣ*, Gr. ἡδ-ύ-ς 'sweet', Lat. *fruc-tu-s*, O.Ir. *fiuss fiss* 'knowledge' from **missu-s*, Goth. *su-nu-s* Lith. *sū-nū-s* O.Bulg. *sy-nŭ* (from **sy-nŭ-s*, § 665, 4) 'son'. Weak form of the suffix of the pf. part. act. Indg. *-us-*: Skr. *vid-úṣ-ī* Gr. *ιδῦα* from **ḥid-uṣ-ka* (§ 131) fem. 'knowing', Goth. *bēr-us-jōs* 'parents' (properly 'those who have brought forth'), Lith. *višk-us-i* O.Bulg. *vlūk-ŭši* fem., to Lith. *velkū* O.Bulg. *vlēka* 'I draw'.

§ 46. Aryan. Skr. *putrá-* Avest. *puṣra-* O.Pers. *puša-* (§ 261) 'son': Osc. *puklo-* 'son'. Skr. *úpa* Avest. *upa* O.Pers. *upā* (read *upa*) prep. 'to': Gr. *ὑπο*, Lat. *s-ub*. Skr. *su-* Avest. *hu-* O.Pers. *u-* prefix = 'well, good, very': O.Ir. *su-* *so-*. Suffix of the loc. pl. Ar. *-su*: Skr. *áśvā-ṣu* Avest. *aspaē-ṣu* 'in equis', O.Pers. *māдай-šuv-a* 'in Medis' (*-a* is postposition): O.Lith. *knýgo-su* (Mod. *knýgo-se* is formed by analogy) 'in libro' from *knýgos* pl. 'liber', O.Bulg. *raḱa-chŭ* 'in manibus' from *raḱa* 'manus'.

In Sanskrit *ru* before a following *u* seems to have passed into *ṛ* (dissimilation). Present stem *śṛ-nu-* ('hear') from **śru-nu-*, cp. Avest. 2. pers. sing. opt. *srunu-yā* (Skr. *śṛnu-yās*), O.Ir. 1. pers. sing. pres. *clu-ni-m*, rt. *kleṇ-*. *bhṛ-kuṭi-ṣ* 'distortion of the eye-brows' beside *bhru-bhaṇa-ga-s* *bhrū-bhaṇa-ga-s* the same. Cp. Osthoff Morph. Unt. IV. 215 f.

§ 47. Armenian. *dustr* 'daughter': Skr. *duhitār-* Gr. θυγάτηρ Goth. *daūhtar* (§ 51) Lith. *duktė* O.Bulg. *dŭšti* 'daughter'. *surb* 'clean': Skr. *śubhrá-s* 'clear, bright'. *nu* 'daughter-in-law': Skr. *snuṣā* Gr. *νύος* OHG. *snur* O.Bulg. *snŭcha* 'daughter-in-law'.

u in non-final syllables was dropped: *dster* gen. of *dustr*, *srboy* gen. of *surb*, verb *srbem* 'I clean'. Cp. § 632.

§ 48. Greek. κλυ-τό-ς 'celebrated': Skr. śru-tá-s 'heard, celebrated', Lat. *in-clu-tu-s*, O.Ir. *cloth* from **clu-to-s* (§ 50) 'celebrated', OHG. *Hlud-rīch* *Hlud-olf* *Hlot-hari* (§ 51). ἐπέρι ἐπέρ 'over': Skr. upári 'above, over', Lat. *s-uper*, Goth. *ufar* 'over'. Weak present suffix -*nu-* in τά-νν-ται: Skr. *ta-nu-tē*, from root *ten-* 'stretch', Lat. *mi-nu-ō*.

In prim. Gr. and probably also for some time after the introduction of the letter *Y*, *u* was spoken by all Greeks. At an early period one part of the dialects changed *u* into *ū* which in the christian era was further changed into *i*. Another part, the Bæotians, Laconians, and probably also the Arcadians, Cyprians, Pamphylians, Chalcidians and Lesbians, retained *u* until far into historical times, e. g. Bæot. λῑγουρό-ς (*uv* = *ū*) = Att. λῑγυρό-ς. Meanwhile the vowel *u* in Bæot. underwent a modification which cannot be precisely defined, after *τ*, *θ*, *δ*, *ν*, *λ*, as is seen by the spelling *ιου* instead of *ου*, e. g. Πολιού-ξενος = Att. Πολύ-ξενος; cp. Osc. *iu* = *u* § 49.

The spiritus asper in ὕδωρ (Skr. *udán-* 'water'), ὕπο ὕπερ (Skr. *úpa úpari*) etc. seems to point to a transition from initial *u-* to *iu* in prim. Greek. Cp. ὕμις: Skr. *yuṣma-*. It is not improbable that *υ* became *ι* through the dissimilating influence of a following *υ*, as πινυτό-ς from **πυ-νυ-τό-ς*, Skr. *pu-nā-mi* 'I clean, clear up'.

§ 49. Italic. Lat. *rubro-* (nom. *ruber*) Umbr. *rufro-* 'red': Skr. *rudhirá-s* Gr. ἐρυθρό-ς O.Bulg. *rŭdrŭ* 'red'. Lat. *duō* Umbr. neut. *tuva* 'two': Skr. ved. *duvā* Gr. δύο 'two'. Osc. *pu-klo-* Pelig. Mars. *pu-clo-* 'son' Lat. *pu-tu-s* 'boy': Skr. *pu-trá-s* 'son'.

In Latin, before labials and perhaps also before *l*, a frequent sound, lying between *u* and *i*, made its appearance for Indg. *u*. *libet*, older *lubet*: Skr. *lubh-* 'to feel a strong desire'. *fimu-s* *fimu-m*, probably related to Gr. θύ-μο-ν. *limpa* (*limpidus*), older form

lumpa to Osc. Diumpais 'Nymphis', prim. Italic **dumpā*-¹). The relation between *silua silva* and Gr. ὕλη is uncertain (cp. Osthoff Morph. Unt. IV 158 f., W. Meyer Kuhn's Ztschr. XXVIII 163 f.). This *i* occurs especially often for the *-u-* of *u-(eu)-*stems, e. g. *lacri-ma*, older form *lacru-ma*, *laci-bus flucti-bus flucti-vagus manifestus* beside *lacu-bus manu-festus*. Compare the change of *a* to the same *u*: *i*-sound (§ 97) in unaccented syllables before the same consonants.

Rem. It has been conjectured (Osthoff in the above named work pages 125, 158) that the *i* in *libet*, *fimus*, *limpa*, *silua* arose from *u* phonetically only in unaccented syllables, in such combinations as *quī lubet*, *cōnlubet*, in *fumō* (cp. *ilicō* from **in slocō*). But should not the historical relation of *loebertatem leiber* to Osc. Lúvfreis 'Liberi' Falisc. *loferta* 'liberta' be such that in Lat. **loyb-* (= prim. Italic **loij-*, § 65 page 52) the consonantal *u* before *b* underwent precisely the same change as the sonantal *u* of *lubet*, so that **loyb* first became **loiḃ*, then *loḃ*, and lastly *lib*-? In that case the change of *lubet* (with *u* in the chief accented syllable) to *libet* could scarcely be questioned. For the change of *loeb-* to *lib-* cp. § 81 rem. 2. I cannot resolve to separate Lat. *liber liberta* from Osc. Lúvfreis and Falisc. *loferta*, although I do not fail to recognise the overwhelming difficulties which present themselves (s. Danielsson in Pauli's Ital. Stud. 4, 156 ff.).

The spelling with *o* shows that *u* in Umbr. had, in certain cases or everywhere, an open sound: *sopam* 'suppam, supinam', *somo summum*, *trifo* 'tribum'. For Umbr. *i-* from *iū-* see § 133.

In Osc., *u* after *d*, *t*, *n*, *s* underwent a change which was represented by *iu*. Diumpais 'Nymphis', Lat. *lumpa* (see above); *eítuivam* beside *éituam* 'pecuniam' (suffix *-u(u)a-*). *tiurri* 'turrim' (a borrowed word?). Niumsieis Νύμισις gen. 'Numisii', to Lat. *numeru-s*. Siuttiis 'Suttius'. Cp. Bæot. *iov* = *ov* § 48.

§ 50. O. Irish. *suth* neut. 'birth, fruit' fr. **su-tu*: Skr. *su-tá-s* Gr. υῖός υἱός 'son'. *sruth* neut. 'river' fr. **sru-tu*: Skr. *sru-tá-s* Gr. ῥυτός 'flowing', Lith. *sru-tà* 'dung-water'. *clu-ni-m* 'I hear': Skr. *śru-* Gr. κλυ-, rt. κλεϋ-.

1) The spellings of the Lat. word as *lumphā*, *limpha*, *lymphā* are due to the supposed derivation from νύμφη, which even gave rise to *nymphaticus* (Löwe Archiv. f. Lat. Lexikogr. I 25).

Compare also Gall. *Druid-es*, O.Ir. *druí* (pl. *druid*) perhaps to, Skr. *dru-* Gr. *δρυ-* 'wood'; Gall. *catu-* 'combat' in *Catu-rig-es* etc. (O.Ir. *cath*, gen. *catha*): OHG. *hadu-* 'war'.

u became *o* through the assimilating influence of *a* or *o* in the following syllable (cp. the similar change of *i* to *e* § 34). *cloth* from **clu-to-s*: Gr. *κλυ-τό-ς* etc. (§ 48). *srotho srotha* gen. of *sruth*. *bond bonn* 'solea' fr. **bundo-s*: Lat. *fundu-s* Skr. *budh-ná-s* 'bottom' (§ 469, 8). Compare West Germanic and Norse *o* from *u* § 51.

u became *o* in monosyllabic words. *nu no* = Skr. *nú* etc. (§ 45). *su-so-* 'well' = Skr. *su-*. *du-do-* 'bad' = Skr. *duṣ-* Gr. *δυ-* Goth. *tuz-*. In this case too it is probable that the change from *u* to *o* was caused by the vowels of the following syllables.

For the fate of *u* in other than chief accented syllables cp. §§ 634. 657.

§ 51. Germanic. 1. pers. pl. pf. Goth. *ana-budum* 'we bade', OHG. *butum* O.Icel. *buðom* 'we offered': Skr. *bu-budh-imá* 'we watched, observed', Gr. *πέ-πυσται πυθ-έσθαι*, Lith. *būd-inti* 'to rouse', O.Bulg. *būd-ěti* 'to wake', from rt. *bheydh-* 'wake, observe'. Goth. *ga-kusts* (st. *ga-kusti-*) OHG. *kust* 'test, choice': Skr. *júṣṭi-ṣ* 'show of affection, favour'; *kustu-s* 'trial': Lat. *gustu-s* 'taste' from rt. *gēys-* 'choose, γένεσθαι'.

Before *h* and *r* Indg. *u* appears in Goth. as *aú*. *aúhsa* (st. *aúhsin-*) 'ox': Skr. *ukṣá* (st. *ukṣán-*) 'bull, ox'. *daúr* (st. *daúra-*) neut. 'door': Skr. *dúr-* (concerning the *d-* see § 480) Arm. *duřn* Gr. *θύρα* Lith. pl. *dūrys* 'door'.

In West Germanic and Norse *u* became *o* through the influence of an *a* or *o* of the following syllable. Part. passive OHG. *botan* (Mod. High Germ. *ge-boten*) O.Sax. *bodan* Ags. *boden* O.Icel. *boðenn* = Goth. *budans*, cp. Skr. part. *budháná-s*. OHG. *tor* = Goth. *daúr* (prim. Germ. **đura-m*) beside *turi* 'door'. Cp. §§ 247. 299.

Rem. Some scholars look upon this umlaut also as prim. Germ. (cp. § 35 rem.).

§ 52. Baltic-Slavonic. Lith. *krūvina-s* O.Bulg. *krūvīnū* 'bloody': Lat. *cruentus*. Lith. pl. *musai* (stem *musa-*) 'mould

on sour milk', O.Bulg. *mŭchŭ* 'moss': Lat. *mus-cu-s*, OHG. *mos* (prim. Germ. stem **musa-*) 'moss'. Lith. *sũ-nũ-s* O.Bulg. *sy-nũ* 'son': Skr. *sũ-nũ-ṣ* 'son'.

In some Lith. dialects *u* is pronounced very open, so that it can be regarded as a closed *o*, e. g. *sukaũ sũko* (1. and 3. pers. sing. pret. of *sukũ* 'I turn') appear as *sõkaũ, sõkõ*.

Slavonic *ŭ* must, already in prim. Slav., have been a reduced sound, approaching the quality of *o*.

ŭ, in Modern Slavonic developments, became a full vowel in closed syllables (such syllables often arose through the falling out of an *ř* or *ũ* in the following syllable), Russ. *o*, Serv. *a*, e. g. Russ. *son* Serv. *san* = O.Bulg. *sŭnũ* from **sŭpnũ* (§ 545) 'sleep': Gr. *ῥν-vo-ς*; Russ. *doč* = O.Bulg. *dŭšti* 'daughter': Lith. *duktė*. On the other hand final *ŭ* disappeared, e. g. Russ. *syn* O.Bulg. *synũ*, loc. pl. Russ. *rybach* Serv. *ribah* = O.Bulg. *rybachũ* (from *ryba-* fem. 'fish'), cp. Skr. loc. pl. *áśva-su* (from *áśvā-* 'mare'). Medial *ŭ* also, as a rule, disappeared in open syllables, e. g. Russ. Serv. *sna* = O.Bulg. *sŭna* (gen. sing. of *sŭnũ*), Russ. *spat* = O.Bulg. *sŭpati* 'to sleep', *legka* = O.Bulg. *lġġka* nom. fem. of *lġġũ-kũ* 'easy' (further formation of an old *ŭ*-stem by means of the suffix *-ko-*). All these modifications can be traced as far back as the period of old Church Slavonic. On the one hand they follow from such double spellings as *krovġ krŭvġ* 'blood', *domochũ domũchũ* (loc. pl. from the stem *domũ-* 'house' = Lat. *domu-*); these forms can only be understood by assuming that the final *ř* and *ũ* were no longer syllabic; on the other hand from such double spellings as *rekšu rekũšu* dat. sing. of the stem *rekũše-*, that is, **rek-ũs-řo-* according to §§ 84 and 147 (part. pf. act. of *rekq* 'I say'), *lġġko* beside *lġġũko* neut. to *lġġkũ*. With these modifications of *ŭ*, compare the parallel treatment of *ř* § 36.

Prim. Slav. *řũ* became *řř* (cp. *ři* from *řy* § 60 and *ře* from *řo* § 84). O.Bulg. *řřvq* 'I chew' from **zřřvq*; OHG. *chiuwu* (§§ 143. 147). *igo* 'yoke' from **řřgo* (§ 145) and this fr. **řřgo*: Skr. *yugá-m*, Lat. *jugu-m*.

Rem. In the Zographos gospel *ī* for *ū* occurs occasionally before palatal vowels, e. g. *bīdēti* = *būdēti* 'to wake', *dūva* m., but *dīvē* fem. neutr. 'two'.

Indg. *ū*.

§ 53. Indg. **dhū-mó-s* 'ebullition, smoke': Skr. *dhūmá-s*, Gr. *θυμός*-s ('courage, passion'), Lat. *fūmu-s*, Lith. pl. *dūmai*, O.Bulg. *dymū*. Indg. **bhū-*, weak form of the the rt. *bhey-* 'be, become' (§ 312): Skr. *bhū-tá-* 'become, been' *ábha-tam* 'ye two were' *bhū-ti-ś* 'good condition, well-being', Gr. *φῦ-ταλή* 'a planted place' 2. pers. du. *ἐφῦ-τον*, Lith. inf. *bū-ti* O.Bulg. *by-ti* 'to be'. Indg. **mūs-* 'mouse': Skr. *mūś-*, Gr. *μῦς*, Lat. *mūs mūr-is*; OHG. *mūs* and O.Bulg. *mysl* fr. **mychl* (§ 588, 2), that is, originally **mūs-i-s*, show the change of the monosyllabic stem into the *ei*-declension.

Indg. *-ū* as ending of the nom. acc. du. of *ey*-stems: Skr. *sūnū* O.Bulg. *syny* from Indg. stem **sū-ney-* **sū-nu-* 'son', Lith. *žmogù* fr. **žmogū* (§ 664, 3) to *žmogù-s* 'man', O.Ir. *mug* fr. **mogū* (§ 657, 2) from stem *mogu-* 'servant'.

§ 54. Aryan. Skr. *dū-rá-* Avest. O.Pers. *dū-ra-* 'far' from rt. *dey-* 'withdraw' (Gr. Hom. *δέυσθαι* 'fall short of'). Skr. *śū-ra-* 'hero', Avest. *sū-ra-* 'strong': Gr. *ἄκυρος* 'weak, invalid'. Skr. *nū* Avest. *nū* 'now': Gr. *νῦν* O.Bulg. *ny-nē* 'now'.

§ 55. Armenian. I do not know any sure examples for the regular representation of Indg. *ū*. The following comparison of words may, however, be taken into consideration. *ku*, gen. *ku-oy*, 'dung' to Skr. *gūtha-* 'excrement', Avest. *gūpa-* 'dirt'. *mukn*, gen. *mkan*, 'mouse, muscle', to Skr. *mūśika-* *mūśaka-* 'rat, mouse,' O.Bulg. *mysika* 'mouse', Lat. *mūsculu-s* (cp. Hübschmann Zeitschr. d. deutsch. morgenl. Ges. XXXV 170, Osthoff Morph. Unt. IV 217 f.). Pl. *srun-k* (*-k* is the sign of the plural) 'shins, shanks', to Lat. *crūr-a* (Hübschmann, as above, page 177). Compare also Hübschmann Armen. Stud. I 62.

§ 56. Greek. *ὀφρῶς ὀφρῶν* 'eye-brow': Skr. *bhrū-ś* O.Icel. *brū-n* Ags. *brū* 'eye-brow'. *βον-λῦ-τό-* 'the time for unyoking oxen': Lat. *so-lū-tu-s*, O.Icel. *lūðr* 'bruised, crushed, deafened,

tired out' (cp. *λύτο γούνατα*). *στῦλος* 'pillar': Skr. *sthū-rá-sthū-lá-* 'coarse, thick, massive'.

The change from *ū* to *ü* went parallel with that of *u* to *ü* (§ 48). The dialects, which retained *u*, retained also *ū*: Bœot. *Εὔ-θουμος* = Att. *Εὐ-θῆμος*, Lac. *μουνσίιδει* (which according to Hesychius means *λαλεῖ*) = Att. **μῦθιζει*.

It is doubtful whether *ī* became *ī* through the dissimilating influence of a following *v* (cp. § 48). *qī-rv* (neut.) 'twig, sprout' has been brought together with Skr. gerund *bhū-tv-ā* and Lat. *fu-tu-ō*. It may, however, be connected with Lat. *fīō* and O.Ir. *bīu* 'fio, sum', the original form of which was **bhū-iiō* (§§ 170. 175). It is still more uncertain whether *īθi-* has come from **īθv-* (Osthoff Morph. Unt. IV 188 ff.).

§ 57. Italic. O.Lat. pf. *fū-ī fū-imus* (Inscript. *fueit*), Osc. *Futtrei* 'deae creatrici': Skr. *bhū-tā-* etc. (§ 53). Lat. *sū-s sū-bus*: Skr. *sū-karā-* 'pig, boar', Gr. *ῥ-ς ῥ-ν*, OHG. *sū* (Mod.HG. *sau*) from prim. West-Germ. **sa-z* (§ 583). Lat. *cūpa* 'vat, recess for the dead': Skr. *kāpa-s* 'pit, hole'.

It is quite possible that in Umbr. the *i* in *pir* (*πῖρ*) beside abl. pure Osc. *purasiai* (loc. sing. of the stem *purasiā-* 'igniaria'), in *sim* (Gr. *ῥν*, Lat. *suem*) and *sif* (acc. pl.) beside *suŕum sorsum* 'suillum', and in *frif* acc. pl. 'fruges', represents an older *ū* which may have been pronounced *ü*. (cp. O.Bulg. *y* fr. *ū* beside *ũ* fr. *u*, §§ 52. 60.). It is however impossible to form a correct judgment owing to the quantities not being marked, and the scantiness of the material. Cp. Osthoff Morph. Unt. IV 16, Zur Gesch. d. Perf. 432.

§ 58. Old Irish. *rūn* (fem.) 'secret': OHG. *rūna* O.Icel. *rūn* f. 'secret, rune'. *dūn* (neut.) 'castle', Gall. *-dūnum* in names of towns (*Lupo-dūnum* and others): O.Sax. Ags. masc. *tūn* OHG. masc. *zūn* O.Icel. neut. *tūn* 'hedge, enclosure'. Pron. *tū* 'thou': Avest. *tū* Gr. *τῦ-ν-η* Lat. *tū* O.Icel. *pū* O.Bulg. *ty*.

For such forms as acc. sing. *rūin* beside nom. sing. *rūn* see § 640.

For *ū* in unaccented syllables cp. §§ 613. 634. 657.

§ 59. Germanic. In Goth., where *u* and *ū* in the native alphabet were not kept apart, *ū* can scarcely ever be established without the help of the other languages. Goth. *fals* OHG. Ags. *fūl* O.Icel. *full* 'foul': Lith. pl. *pūlei* 'matter', Gr. *πέθω* 'I make to rot, putrefy', Lat. *pūs pūris* 'matter, spittle' *pū-teō* 'I smell bad, stink'. Goth. *rūms* OHG. O.Sax. m. *rūm*, O.Icel. neut. *rūm* 'room, open place', from the same root as Lat. *rūs rūris* 'open field, country', Avest. *ravah-* 'free'. OHG. *ūtar* Ags. *ūder* 'udder': Skr. *ūdhar* 'udder'. OHG. *hlūt* Ags. O.Sax. *hlūd* 'loud' from rt. *kleu-* 'hear': cp. Gr. imperative *κλῦ-τε*, O.Bulg. *sly-šati* 'to hear', *sly-tije* neut. 'call, name'.

§ 60. Baltic-Slavonic. Lith. *tūla-s* adj. 'so many a', originally a substantive denoting 'a mass', O.Bulg. *tylū* 'nape', originally 'intumescence': Skr. *tūla-* neut. 'panicle, tuft, cotton', Gr. *τέλη* 'a swelling or lump, callosity', from rt. *teu-* 'tumere'. Lith. *sūra-s* 'saline', O.Bulg. *syrū* 'raw': OHG. *sūr* O.Icel. *surr* 'sour, bitter'. Lith. *jūs* 'ye': Avest. *yūš yūšem* 'ye'. O.Bulg. *svekry* 'mother-in-law': Skr. *śvaśrū-ś* 'mother-in-law'.

The change of *ū* to *y* belonged to the prim. Slav. period.

Prim Slav. *īy* became *īi* (cp. *īl* from *īū* § 52). O.Bulg. *šiti* fr. **sīiti* (§ 147), and this fr. **sīyti*: Lith. *siūti* 'to sew', Skr. *syūti-ś* fem. 'sewing, sack'. Compare also *kraji* instr. pl. of *krajī* 'edge' but *raby* instr. pl. of *rabū* 'servant'.

Indg. *e*.

§ 61. Indg. pres. stem **bhero- bhere-* 'bear': Skr. *bhārāmi*, Arm. *berem*, Gr. *φέρω*, Lat. *ferō*, O.Ir. *berim*, Goth. *baíra*, O.Bulg. *bera*. Indg. **és-ti* 'is': Skr. *ásti*, Gr. *ἔστι*, Lat. *est*, O.Ir. *is* (proclitic), Goth. *ist*, Lith. *esti* (now archaic), O.Bulg. *jestī*. Indg. *e* in the root syllable of neuters in *-es-*, e. g. Indg. **régos* 'vapour, darkness': Skr. *rájas*, Arm. *erek*, Gr. *ἔρεβος*, Goth. *riqiz-a-*; Indg. **nébhos*, 'cloud, atmosphere': Skr. *nábhas*, Gr. *νέφος*, Lith. *debes-i-s* (the origin of the *d-* instead of *n-* is not clear), O.Bulg. *nebo*, comp. also with *l-* suffix Gr. *νεφέλη* Lat. *nebula* O.Ir. *nēl* (prim. kelt. stem **neblo-*, § 526) OHG. *nebul* 'cloud, fog'. Indg. **qe* 'and': Skr. *ca*, Gr. *τὲ*, Lat. *que*. Augment

of the past tenses of the Indicative (originally an independent particle) Indg. *é*: 3. pers. sing. Skr. *á-dṛśat* Gr. *ἑ-δραξε* (rt. *derk-* 'see'), Arm. *e-liḵ* Gr. *ἑ-λιπε* (rt. *leiḡ-* 'leave'), Goth. *i-ddja* Skr. *á-yat* 'he went' (for Goth. *ddj* see § 142).

-*e* Indg. ending of voc. sing. of *o*-stems: Skr. *vṛka* Gr. *λύκε* Lat. *lupe* 'wolf', O.Ir. *maicc maic* from prim. kelt. **makue* 'son', Lith. *vilkė* O.Bulg. *vľučē* 'wolf'. The 'thematic vowel' Indg. -*e* (by the side of -*o*): e. g. 2. pers. pl. Skr. *bhár-a-tha*, Gr. *φείρ-ε-τε*, Lat. *veh-i-tis*, Goth. *bair-i-þ*, O.Bulg. *ber-e-te*. Nominal suffix Indg. -*es*:- gen. sing. Skr. *nábh-as-as* Gr. *νέφ-ε(σ)-ος* Lat. *gen-er-is* O.Bulg. *neb-es-e*, Goth. stem *riq-iz-a-* (a further formation by means of -*a*-), Lith. nom. sing. *deb-es-į-s* (a further formation by means of -*i*-). Nominal suffix Indg. -*ter*:- Nom. pl. Skr. *pi-tár-as* 'fathers', Arm. *ds-ter-ḵ* 'daughters', Gr. *πα-τίρ-ες*, gen. sing. Lith. *mo-tėr-s* O.Bulg. *ma-ter-e*. Ending of the nom. pl. Indg. -*es*: Skr. *áśmān-as* from *áśman-* 'stone', Gr. *ἄκμων-ες*, O.Lat. *turbin-ēs*, Lith. *ākmens* from **akmen-es* (§ 664, 2) O.Bulg. *kamen-e* from **kamen-es* (§ 665, 4) 'stones'. Ending of the 3. pers. sing. indic. pf. act. Indg. -*e*, e. g. **de-dórċ-e* (from rt. *derċ-* 'see'): Skr. *dadárś-a*, Gr. *δέδορξ-ε*, O.Ir. *ad-con-daírc* from prim. Kelt. **-dorke*.

Indg. tautosyllabic *eĭ*¹⁾. Skr. (ved.) *bhédāmi* 'I cleave', Goth. *beita* 'I bite', original form **bhéidō*; Arm. *lizem* Gr. *λείχω* 'I lick', original form **léiġhō*; Lat. *fidō* Gr. *πείθω*, orig. form **bhéidhō*; O.Ir. *tiagim* 'I go', Gr. *στειχω* 'I go', Goth. *steiga* 'I climb', orig. form **stéiġhō*; Lith. *geidžiū* 'I have a desire' for older **geidu* = O.Bulg. *židq* 'I wait, expect', orig. form **qhéidhō*. Indg. **éi-ti* 'he goes': Skr. *éti*, Gr. *εἶσι*, Lat. *it*, Lith. *eiti eĩt*, cp. O.Bulg. *i-dq* 'I go'. Indg. **gheĩ-men-*: Skr. *hēman-* 'winter', Arm. *jiun* 'snow', from **jivn*, **jiman* (§ 202), Gr. *χειμα χειμών*.

1) We call a sound-group tautosyllabic, when its elements belong to the same syllable, i. e. are uttered with the same expiration-impulse; heterosyllabic, when the last element or elements are produced by a fresh expiration-impulse. *eĭ* e. g. is tautosyllabic before consonants (**bheĩ/dhō* = Gr. *πείθω*) and in a pause (**hoĩ/keĩ/* = Gr. *οἴκει*). It is, as a rule, heterosyllabic before sonants (**gm̥/te/ies* = Skr. *gátayas*, Gr. *βάσεις* from **baσe(ι)es*).

Indog. tautosyllabic *ey*. Skr. *bódhāmi*, Gr. *πύθομαι*, Goth. *ana-biuda*, cpf. **bhéydhō* 'I watch, observe'; Lat. *dūcō* 'I lead', Goth. *tiuha* 'I draw'; O.Bulg. *skubq* 'I pull, tear', Goth. *af-skiuba* 'I shove off', Skr. *kṣóbhatē* 'falls in motion, wavers'. Indg. **kley-men-* **kley-my-to-*: Skr. *śrómata-* neut. 'the act of hearing' Avest. *sraoman-* neut. 'hearing', Goth. *hluma* masc. (gen. *hlumins*) 'hearing' OHG. *hlumunt* 'renown'. Gr. *ρέυμα* 'that which flows', O.Ir. *sruaim* (dat. pl. *sruamannaib*) 'stream', cpf. **srey-men-*. Gr. voc. *Zēv*, Indg. **dīey*.

§ 62. Aryan. Indg. *e* became *a* in the prim. Aryan period. This change however did not take place until after the vowel had changed the preceding *q*, *g*, *gh* into *c*, *j*, *jh* (§ 445). Skr. Av. *ca* O.Pers. *cā* (read *ca*) 'and': Lat. *que*. Skr. *pāñca* Av. *panca* 'five': Arm. *hing*, Gr. *πέντε*, Lat. *quīnque*, O.Ir. *cōic* from prim. Kelt. **kwenkwe* (cp. § 212), Goth. *fimf*, Indg. **pénqe* 'five'. Skr. *śrávas-* neut. 'renown', Av. *sra vah-* neut. 'word, prayer': Gr. *κλέφ-ος* 'renown', O.Bulg. *slovo* 'word' (§ 68), Indg. **kléy-os* (stem **kléy-es-*). Present stem Ar. *pat-a-* 'fly, fall' Skr. 3. sing. pres. act. *páta-ti* av. 3. sing. pret. act. *a-pata-ḥ* O.Pers. 3. sing. pret. mid. *a-pata-tā* (read *-ta*): Gr. *πίτεται*, Lat. *peti-t*. Skr. *pári* Av. *pairi* O.Pers. *pariy* (read *pari*) 'round, about': Gr. *πέρι*.

Indg. tautosyllabic *eī*, *ey* became *aī*, *ay* in prim. Aryan, thence Skr. *ē*, *ō*, Av. *aē*, *ōi*, ao *ēu*, O.Pers. *ai*, *au* (cp. §§ 126. 160). Skr. *é-ti* Av. *aēiti* (= **aē-ti*, § 638) O.Pers. *ai-tiy* (read *aiti*) 'he goes': Gr. *εἶσι*. Skr. *bódhatē* Av. *baodaitē*: Gr. *πύθεται*, Indg. **bhéydhetai* from rt. *bheydh-* 'guard, watch, observe'. O.Pers. *dauštar-* 'friend', Skr. *jōṣṭár-* 'one who desires' from rt. *jeyus-* 'choose': cp. Gr. *γευστήριον* 'a thing to taste with, a cup'.

Rem. Av. final *aē* became *ē*, see §§ 78, 94. Here would have to be mentioned loc. sing. *aspē* beside *aspōi* and *aspaē-ca* (*-ca* = Gr. *τὴ*, Lat. *-que*) = Skr. *āśvē* (from Indg. stem **ek̑yo-* 'horse'), if *-aī*, the prim. Ar. ending of *o*-stems, arose from Indg. *-eī* (cp. *οἶκει*). This, however, can also be traced back to Indg. *-oi*. Cp. § 116 and the accidence.

For Av. *e*, *i*, *e*, *o* from prim. Iran., prim. Ar. *a* = Indg. *e* see § 94.

§ 63. Armenian. *cer* 'old man': Gr. γέρον 'old man', Skr. *járant-* 'fragile, old man'. *eln* (gen. *elin*) 'stag': Gr. ἔλαφος (orig. form **elḡ-bho-s*) 'stag', Cymric *elain* 'cerva', Lith. *ėln-i-s* O.Bulg. *jelen-i* 'stag', cpf. **elen-*. *evñ* 'seven': Gr. ἑπτά, Lat. *septem*, O.Ir. *secht n-* (§§ 211, 243), Goth. *sibun*, Lith. *septyni*, O.Bulg. *sedmŭ*, Skr. *saptá*. *ev* 'and, also': Gr. ἐπὶ 'on, at', Skr. *ápi* 'also', cpf. **épi*.

e became *i* before nasals. *hin* (gen. *hnoy*) 'old': Gr. ἔνο-ς 'old', Lat. *sen-ior*, O.Ir. *sen* 'old', Goth. *sin-ista* 'the oldest (man)', Lith. *sėna-s* Skr. *sána-s* 'old', Indg. **seno-s*. *cin* 'birth': Gr. γένος. *hing* 'five': Gr. πέντε.

Occasionally *a* is found instead of *e*, e. g. *tasn* 'ten': Gr. δέκα, Lat. *decem*. The circumstances under which *a* occurs for *e* have not been ascertained.

Indg. tautosyllabic *eġ* appears as *ē* in final syllables, in other syllables as *i*. *dizem* 'I accumulate', orig. form **dhéġhō* (cp. Gr. τεῖχος 'wall', Av. *pairi-daēza-* 'fence'), aor. 1.sing. *dizi*, 3. sing. *e-dēz*. *lizem*, *lizanem* 'I lick': Gr. λείγω. *jiun* 'snow': Gr. χεῖμῶν.

Indg. tautosyllabic *eṽ* appears as *oi* in final, as *u* in non-final syllables. *lois*, gen. *lusoy*, 'light': Gr. λευκό-ς 'white', Goth. *liuh-aþ* 'light'. *unain* 'empty' from **oin-ain*: Gr. εὖ-νι-ς 'bereft'. *eṽ* probably in the first place became *ou*; cp. § 79 and *nor* (gen. *noroy*) 'new' as compared with Gr. νέφο-ς, νε(φ)αρό-ς.

§ 64. Greek. *ἔπεται* 'he is together with, follows': Lat. *sequitur*, O.Ir. *sechur* 'sequor', Lith. *sekù* 'I follow', Skr. *sácatē* 'he is together with, follows', Indg. 3. sing. pres. mid. **séq-e-taġ*. 1. sing. *ἔω ὦ*: Lat. *erō* (used as future), Skr. *ásāni*, conj. to Indg. **és-mi* 'I am.' *γένος* neut. 'sex, race': Lat. *genus*, Skr. *jánas*, Indg. **génos*. *πλέ(φ)ω* 'I sail, swim': O.Bulg. *plónq* 'I flow, sail' (§ 68), Skr. *plávatē* 'he swims, sails', Indg. 1. sing. act. **pléu-ō*. *ἐγώ* 'I': Arm. *es*, Lat. *ego*, Goth. *ik*, Skr. *ahám*. Comparative suffix *-τερο-*: πό-τερο-ς, ὠμό-τερο-ς: Skr. *t-tara-s* 'other', Lat. *i-teru-m*, O.Ir. *luathi-ther* 'quicker', O.Bulg. *je-terŭ* 'quidam'.

λείπω 'I leave': Goth. *leihva* 'I lend', cpf. **léiq-ō*. *ζεῦγος* neut. 'yoke': Lat. *jūger-o-* (cf. dat. abl. *jūger-ibus*) 'acre'. *ζευκτηρες*

'straps of the yoke' : Skr. *yōktār-* 'he who puts the harness on'.

In the Elean dialect *ε* was pronounced very open, as is seen through the representation of this sound on inscriptions by *α*, e. g. *σκενάων* gen. pl. beside *σκεύεα*, *ἐνσαβεία* = Att. *ἐνσεβοῖ*.

In the Locrian dialect *ερ* became *αρ*, e. g. *πατάρα* = *πατέρα*, *ἀνφόταρος* = *ἀμφότερος*.

In the Doric dialects, as well as in Lesbian, Thessalian, Pamphylian and Cyprian *ε* became *ι* before vowels, especially before *ο* and *α*, e. g. Lacon. *θιός* = *θεός*, Cypr. *ῥέπιχα* = Ion. *ῥέα*, whilst *ε* in this case at least, was pronounced close in the Boeot. and Ionic-Attic dialects. This is shown by the representation of this short vowel by means of *ε*, *ει*, *ι* in Boeot. (e. g. *θεο-θειο-θιο-*) and by *ε*, *ει* in Ionic-Attic (e. g. *ἐαυτόν* and *εἰαυτόν* from **σε(F)αῦτον*, *ἐννέα* and *εννεία* from **ἐν-νε(F)α*).

The Indg. tautosyllabic *eῖ* in *λείπω* etc. was still a diphthong in Ionic and Attic at the beginning of the V. century B. C.; but during this century it became a close *ē* and in the III. cent. B.C. *ī*, though the spelling *ει* was retained. This change also took place in the other dialects, earliest in Boeot., where *ī* appears on inscriptions already in the V. cent. B. C. and *ει* was dislodged from the written language.

In Cret. *ευ* became *ου* by the assimilation of the *ε* to the second component of the diphthong, e. g. *ψονδία* = *ψευδέα* *ψευδῆ*. *ερ* for *ευ* in Ionic can be traced back to the V. cent. B. C., e. g. *φρόγειν* (cp. *αρ* from *αυ* § 96).

§ 65. Italic. Lat. Falisc. Umbr. *est*, Volsc. *estu* 'esto', Osc. *estud* 'esto': Gr. *ἔστι*, *ἔστω*. Lat. *decem*, Umbr. *desen-duf* (i. e. *dēsēnduf* see §§ 23. 387) 'duodecim', Osc. *dekkvīarīm* 'decurialem': Gr. *δέκα*, O.Ir. *deich* *n-* fr. prim. Kelt. **deken* (§ 66), Goth. *taihun*, Lith. *dėszimt*, O.Bulg. *desetŭ*, Skr. *dāśa*. Lat. *en* (*en manom* 'in mortuum') *en-do*, *in in-du*, Umbr. imper. *en-etu* 'inito', Osc. *em-bratur* 'imperator', Pelign. abl. pl. *em-pratois* 'imperatis, iussu': Gr. *ἐν*, Goth. *in*. *e* in the perfect reduplication, O.Lat. *pe-pugī*, Umbr. *pe-purkurent* 'rogaverint', Osc. *fe-facīd* 'fecerit': Gr. *πε-φύασι* Skr. *ba-bhāva* from rt. *bheṃ-* 'to be, be-

come', O.Ir. *ce-chan* 'cecini' (cp. Lat. *canō*, *ce-cinī*), Goth. *raī-rōþ* (to pres. *rēda* 'I advise'). Lat. *pecu*, Umbr. *pequo* 'pecua': Goth. *faihu*, Skr. *páśu*, cpf. **péku* 'cattle'. Lat. Umbr. *et*: Gr. *ἔτι*. Lat. *mediu-s*, Osc. *mefiaí* loc. from st. *mefiā*- 'media': Gr. *μέσσο-ς* *μίσο-ς* 'medius', O.Ir. *medōn* 'the middle', Goth. *midjis* 'medius', O.Bulg. *mežda* 'medium, boundary', Skr. *mádhyā-s* 'medius', Indg. **médhjo-s* 'medius'.

Heterosyllabic and tautosyllabic Indg. *eu* became common Italic *ou*:

1. O.Lat. *tuos* 'tuus', Umbr. gen. *tover* 'tui', Osc. dat. *tuvai* 'tuaē', prim. Italic **toyo-s*: Gr. *τε(φ)ό-ς*. O.Lat. *sovo-s* 'suus', Osc. abl. *súvad* 'sua', prim. It. **soyo-s*: Gr. *ῥός* from **σεφό-ς*. Lat. *novem* (for **noven*, formed after the analogy of *septem*, *decem*, cp. § 233), Umbr. *nuvis* 'novies': Goth. *niun*, Skr. *náva*, Indg. **néμψ* 'nine'. Lat. *novo-s*, Osc. acc. *Núvellum* 'Novellum' nom. pl. *Núvlanús* 'Nolani', Mars. dat. pl. *Novesede* 'Novensilibus', prim. It. **noyo-s* 'new': Gr. *νέφο-ς*. Lat. *plōvēbat*, *perplōvere*: Gr. *πλέ(φ)-ω*. For *-u-* from *-ou-* in unaccented syllables, as *dēnuō* from *dē novō*, see § 172, 1.

2. Lat. *doucō dūcō* 'I lead': Goth. *tiuha*, cpf. **déukō*. *ūrō* 'I burn': Gr. *εῦω* *εῦω* 'I singe', Skr. *ōśāmi* 'I burn', Indg. **éμsō*. Cp. also O.Lat. *Polouces* (*l* = *ll*), later *Pollūcēs* = *Πολυδευκής*. Umbr. *totam* 'civitatem', Osc. *τωφτο* 'civitas' *tovtad* 'civitate' *túvtíks* 'publicus', Marruc. *tottai totai* 'civitati': Goth. *þiuda* 'people', cpf. **teptā*. Osc. gen. *Lúvfreis*, Falisc. *loferta* 'liberta': Gr. *ἐλεύθερος*; concerning Lat. *loebertatem liber* see § 49 rem. On the history of this tautosyllabic It. *ou*, which fell together with Indg. *ou*, cp. § 81 page 77.

Rem. 1. The nature of the transmission and the historical facts of the language, as exhibited above, exclude any importance being attached to the form *Leucesie* in the Saliar hymn; cp. also Jordan Krit. Beitr. zur Gesch. der lat. Sprache 1879, p. 31 ff.

e remained unchanged in Latin:

1. Before *r*. *ferō*, *cōnferō*, *vertō*, *convertō*, *alter*, *alterius* with *r* = Indg. *r*; the form *lēvir* 'brother-in-law' arose through popular etymological association with *vir*, cp. Gr. *δᾱήρ* acc. *δᾱέρα*, Lith. *dēver-ī-s*. *gerō*, *ingerō*, *sceleris* with *r* from *s* (cp. § 569).

2. Finally. *lupe* : λύκε. *age agite* : ἄγε ἄγετε. *quīnque* : πέντε.

3. As a rule before double consonants: *scelestu-s*, *ob-sessu-s* (*ob-sideō*), *au-spex* (*au-spic-is*).

Change of *e* to *i*:

1. According to prim. Lat. accentuation in unaccented syllables (§ 680) followed by a single consonant (except *r*). *colligō* : *legō* λέγω. *ob-sideō* : *sedeō* ἔδος. *oppidum* : *Pedum* πέδον. *prō-tinus* : *tenu-s*. *agite agitō* : ἄγετε ἀγέτω. *agiminī* : ἀγόμενοι.

Rem. 2. The *i* instead of *e* in *plicō* (Gr. πλέκω), O.Lat. *spiciō* (rt. *spek-*) *miniscor* (rt. *men-*), and others, is to be explained from the fact that the form, which regularly arose in composition, made itself independent (*com-plicō*, *cōn-spiciō*, *re-miniscor*).

Rem. 3. *juven-em* with *-en-* instead of *-in-* was, perhaps, influenced by *juventūs juvenu-s* etc. *ap-petō*, *ex-petō* for **ap-pitō*, **ex-pitō* re-formed from analogy with the simple form *petō*, or else formed at a time when the activity of the law had died out according to which *colligō* etc. arose; cp. *exquaerō* beside *exquirō*, *exaequō* beside *iniquo-s*, *conclausu-s* beside *conclūsu-s* etc.

2. Independent of accent, in closed syllables before nasals. *quīnque*¹⁾ : πέντε. *tinguō* : τέγγω 'I wet'. *in intus* : ἐν ἐντός. To which may be added *dīgnu-s* beside *decet*, as well as *līgnu-m*, *tīgnu-m*, in case they really are related to *legō* 'I gather, collect' and τέχνη; for *gn* was pronounced *ɲn* (§§ 500. 506). This change also affected *en* and *em* from *ɲ* and *ɲi* (§ 237), e. g. *vīgintī* : Dor. *ῥίκατι*, *sim-plex* : ἁ-παξ. There are, however, in both cases many exceptions, the explanation of which is difficult, e. g. *offendimentu-m* (*fend-* = Indg. **bhendh-* and *-mento-* = Indg. **mpto-*), supine *ventum* (= Skr. *gántu-m*, Indg. **gém-tu-m*), part. *in-ventu-s* (= Gr. *παρό-ς*, Skr. *gatá-s*, Indg. **gṛn-tó-s*). Cp. further *decem* (= Skr. *dáśa*, Indg. **dékṇ*) beside *undecim*.

For Lat. *-o-* from *-ue-* see § 172, 3.

Tautosyllabic *ei* seems to have still been a diphthong in Lat. at the period of the oldest monuments, cp. the spellings *deivos deiva*, *deico*, *feido* and others. The diphthong, however,

1) Concerning the long vowel in *quīnque*, *dīgnu-s*, *līgnu-m*, and *tīgnu-m* see § 619.

at an early date became an open *i*, and the sign *ei* now became also employed for the representation of open *i*-vowels (or close *e*-vowels) of other origin (see §§ 41. 73).

In Umbrian and Oscan Indg. *e* was mostly represented by *e*. Besides the examples already mentioned, the following may be compared: Umbr. *petur-pursus* 'quadrupedibus', Osc. *petora* 'τέτραρα', Umbr. *co-vertu* 'convertito', *destram-e* 'in dextram', Osc. dat. Genetai 'Genitae' (to Lat. *genitor*). Beside these occurs also *i*, Osc. *i*, e. g. Umbr. *tišit* 'deceit', Osc. *ist* 'est' (beside *estud* 'esto'), *nistrus* 'propiores' (beside *nesimum* 'proximum'). Owing to the scarcity of the material it is impossible to decide whether the change to *i* (open) took place under certain conditions, unknown to us, or whether *e* had everywhere the same close pronunciation in Umbrian-Oscan, and that we have here to do with a mere irregularity of the graphic representation of the sound.

Tautosyllabic *ei* was represented in Oscan by *ei*, *ei* and (rarely) *ii*. *deikum* *deicum* inf. 'dicere'. *deivai* dat. 'divae', *deivatud* imper. 'iurato', *diivii* dat. 'divinae' (a derivative like Umbr. *deveia* 'divina'). *terei* loc. 'in terra', cp. Gr. *οἴκει*. The spelling *ii* points to a passage of the diphthong into open *i*. In Umbrian *ei* certainly became closed *e*. *etu etu* 'ito'. *deveia* 'divina'. *destre* loc. 'in dextro', cp. Osc. loc. *terei*.

§ 66. Old Irish. *e* was often retained as such in chief-accented syllables. *con-dercar* 'conspicitur': Gr. *δέχομαι* 'I see', from rt. *derk-*. *celim* 'I hide': OHG. *hilu* 'I hide', cpf. **kelō*. Gen. *meda* 'of mead', Skr. *mádhu* 'sweetness, honey', Gr. *μέθυ* 'wine', OHG. *metu* 'mead', O.Bulg. *medŭ* 'honey', Indg. **médhu-*. *ech*, Gall. *epo-* (in *Epo-rēdia* name of a town): Lat. *equo-s* Goth. *aithva-* (in *aithva-tundi* 'thorn bush') Skr. *áśva-s* Indg. **ékwo-s* 'horse'. *tech teg* 'house' from **tegos*: Gr. *τέγος*. *cethir* 'four': Gr. *τέτταρες*. Cp. further Gall. *πεμπέ-δονλα* 'quinquefolium': Gr. *πέντε*, Indg. **pétaze*.

In such cases as: gen. *eich* 'equi' from prim. Kelt. **ekwā* (-*i* still in Ogam inscriptions, as *maqui* 'filii', and in Gall. *Sego-mari* etc.): Lat. *equi*; 3. sing. pres. *as-beir* 'he brings forward,

says' from **berit*, prim. Indg. **bheret*; *deich* *n-* 'decem' from **deken*, Indg. **dek̃ñ* (§§ 242. 243) the *i* after the *e* only indicates the palatal timbre of the following consonant, which had been produced through the palatal vowel of the next following syllable. In a corresponding manner the *u*-(*o*)-timbre of the following consonants is represented by *u* and *o* in the dat. sing. *neurt*, *each* from **nertō*, **ek̃ō* (nom. *nert*, *ech*, stem *nerto-* 'power, might', *echo-* 'horse'; with *nerto-* cp. Gall. *Nerto-marus*, *Cob-nertus* etc.). See § 634. Under certain conditions chief-accented *e* became *i* before a following palatal vowel or *u*. *tige* fr. **tegosos*, gen. sg. to *tech* 'house'. *as-bir* 'thou sayest' fr. **biri(s)*, prim. f. **bhere-s*. *mid* 'mead' fr. **medu*, to gen. sg. *meda*, s. above. *as-blur* 'I say' fr. **biru*, prim. f. **bherō*.

e in other than chief-accented syllables, in case it did not entirely vanish, (§§ 634. 657), became an irrational vowel, the quality of which adjusted itself mostly to the timbre of the following consonants.

i. *as-bérid* 'you say' = Gr. *ᾠέρετε*. *is* 'est' always proclitic = Gr. *ἐστί*; the accented form would be **eis*.

a. *as-* 'ex' in *as-bérid*, *as-rénaim* 'reddo' and others beside *és-* (O.Gall. *ex-*, Cymr. *eh-*: Lat. *ex*, Gr. *ἐξ*) in *és-rechtaid* 'exlex' *és-orgun* 'a striking, killing' etc.

u. (*ni*) *épur* (fr. **éd-bur*) beside *as-blur* 'dico' fr. **beru*, prim. Kelt. **berō* = *ᾠέρω*. *cóm-mus* 'proportion, weight, worth' to *méss* 'measure, judgment' fr. **messu-s* (**med + tu-s*, to Goth. *mitan* 'to measure').

In forms like *só-nirti* adj. pl. 'strong, brave', *só-nirte* 'strength, power' compar. *só-nortu* 'stronger' beside *nért er* had first become *ɣ*. S. § 634. In the later orthography *só-nairti* *só-nairte* beside *só-nirt* *só-nirte* *a* merely indicates the timbre of the preceding consonant. S. § 640.

Indg. and prim. Keltic tautosyllabic *eɣ* became *ē*, whence *ia*, if *a*, *o*, or *u* followed. *ad-fēded* 'narrabat', *ad-fiadat* 'narrant': Gr. *ᾠέδομαι*, rt. *ᾠείδ-*. Fut. 2. pers. pl. *for-tēsíd* 1. pers. pl. *for-tiasam*, to 1. sg. pres. *for-tiagaim* 'I help': Gr. *στέλω στείλω*, Goth. *steiga*. Voc. *dē* 'O God' from **dē(u)e* (Lat. *deive*), nom.

dia from **dē(u)o-s* (Lat. *deivos*). On the 2. sing. *for-tēis* cp. § 640. *ē* = Indg. *eī* is to be held for prim. Kelt. Cp. *e*. g. Gall. *rēda* 'waggon' *Epo-rēdia*, O.Ir. *rēid* 'passable, free, even, smooth' Cymr. *rhwydd* 'prosper, expeditus' (st. **rēdi-*), O.Ir. *riadaim* 'I drive, ride', rt. *reīdh-*: OHG. *rītan* 'to move oneself away, drive, ride' and *be-reiti* 'ready, equipped' (the latter with rt. form *roīdh-*).

Indg. tauto- and heterosyllabic *ey*. The Irish and British branch concurrently point to *oy*. This, before consonants, became in O.Ir. *ō*, whence probably in the first instance *ua*, when *a*, *o* followed; in British *u*. O.Ir. *tuath* Cymr. Bret. *tut* Corn. *tus* 'people' from **tōta*: Goth. *þiuda*, cpf. **teyta*. O.Ir. *lōche* (gen. *lōchet*) 'lightning', *luach* 'white' in *luach-tē* 'whitehot': Goth. *liuhap* 'light', Gr. *λευκό-ς* 'white'. O.Ir. dat. pl. *srua-mannaib*, nom. sing. *sruaim* 'stream': Gr. *ῥεῦ-μα*, Indg. stem **srey-men-*. In like manner we have *ō* from antesonantal *oy* in O.Ir. *nōi n-* 'nine' (beside Cymr. *naw* Corn. *naw* Bret. *nav nao*), fr. **noyen*, Indg. **néyn* (cp. §§ 65. 174. 233); whereas *ū* in O.Ir. *clū* 'renown' = Gr. *κλέF-ος* and in *nūe* 'new' beside O.Bret. *nowid*, to Skr. *nāvya-s* (cp. §§ 139. 154).

Rem. If the change from *ō* to *ua* in O.Ir. was occasioned by an *a* or *o* in the following syllable, then such forms as nom. *sruaim* fr. **srōmin*, dat. *tuait̪h* from **tōt̪i* cannot have been formed according to law, but are merely due to a levelling with the forms of other cases.

ey is still found in Gall. in forms like *Teuto-matus*, *Leucetius* (Zeuss-Ebel G. C. 34 f.); beside these already also *Toutus* *Toovtiovς* etc. (as quoted above). In like manner also *Nivella*, *Nivisium*, the *i* of which is also probably a direct continuation of *e*, but also already *Novesium* and *Novio-dūnum* 'New-castle' (as quoted above 56). The question is probably here a difference of dialect within the Gallic branch itself.

§ 67. Germanic. Indg. *e* became *i* in prim. Germ. in the following cases:

1. before nasal + consonant. Goth. O.Sax. Ags. *bindan* OHG. *bintan* O.Icel. *binda* 'to bind', 1. sing. Indg. **bhéndhō*: Skr. *bándhana-m* 'a binding' fut. *bandhiṣyá-ti* 'he will bind', Lat. *of-fendimen-tu-m* 'chin-cloth'.

Rem. 1. That this *i* made its appearance already in prim. Germ., is confirmed by the fact that the verb Goth. *rinna* OHG. *rinnu* 'I run', whose orig. form **ri-nu-ō* contains Indg. *i*, and which belongs to Skr. *ri-ñā-ti* 'lets flow, lets run', *ri-nī-té* 'begins to flow' (Osthoff Morph. Unt. IV. 45), passed over into the series *binda* : *band* in its tense-formation in every Germ. dialect (pret. Goth. OHG. etc. *rann*). This could only have taken place, if the *i* in *bindan* etc. had already arisen.

2. In hetero- and tautosyllabic *ei*.

a. Nom. pl. Goth. *þreis* OHG. *dri* O.Icel. *þrīr* 'three' from **prii(i)z* **preiez* : O.Bulg. *trīje* (§ 68), Skr. *tráyas*, Gr. *τρεις* from **rpe(ι)εs*, Indg. **tréi-es*. Goth. *gasteis* OHG. *gesti* O.Icel. *gester gestir* 'guests' from **gasti(i)z*, **gasteiez* : O.Bulg. *gostīje*, cpf. **ghostei-es*, cp. Skr. *ávay-as* (nom. sing. *ávi-ṣ*). Goth. *satjan* O.Sax. *settian* O.Icel. *setja* infin. 'to cause to sit, to set', 1. sing. Goth. *satja* from **satiǵō*, **sodéǵō*, causat. from rt. *sed-* 'sit' : cp. Skr. *saddāya-mi* 'I make to sit, set', Gr. *qοβέω* 'I make to flee, scare' from **qοβεiω*.

b. Goth. *steigan* OHG. *stīgan* O.Icel. *stīga* 'to climb', prim. Germ. 1. sing. **stīzō* from **stiǵzō* : Gr. *στειχω*, Indg. **stéǵhō*.

Rem. 2. The great antiquity of this *i* is confirmed by the fact, that the present: Goth. *þeiha* OHG. *dīhu* 'I extend', which in prim. Germ. had arisen from **þinǵō*, older **þenǵō* (= Lith. *tenkù* 'I reach out with something') (§ 214), gave occasion for the formation of the pret. form: Goth. *þáih* OHG. *dēh* etc. (after the analogy of preterites from such roots as *steigh-*). This was only possible, if the *i* in **stīzō* (goth. *steiga*) was already there.

3. When the following syllable contained a pre-Germanic *i(i)* or *i*. From 3. sing. **esti* (= *ἔστι*) **isti* : Goth. OHG. O.Sax. *ist*, Ags *is*. From 3. sing. **bhereti* (O.Bulg. *bereti*, Skr. *bhárati*) **beredi*, thence **beridi* : Goth. *butriþ*, OHG. *birit*. Prim. Germ. **liziana-n* 'to lie' : O.Icel. *liggja* O.Sax. *liggian* OHG. *likkan* : Gr. *λέχος* 'bed' rt. *leg-*. Prim. Germ. **irþmaz* 'earthen' (OHG. *irdīn*) beside **erþō* 'earth' (OHG. *erda*) : Gr. *ἔρ-αῖε* 'on to the earth'.

Rem. 3. We have also here a proof of the great antiquity of the *i*. The verb **biðiana-n* 'to beg' (Goth. *biðjan* O.Sax. *biddian* O.Icel. *biðja*), which belongs to Gr. *πείθω* 'I prevail upon, persuade' rt. *bhejdh-*, would not have had *a* in the pret. of all Germ. dialects (3. sg. **bað(i)* Goth. *baþ* etc.), had not prim. Germ. **liziana-n*, **sitiana-n* (rt. *sed-*) been pronounced with *i*.

4. Finally, e. g. 2. sing. imper. **fari* (Goth. *far*) from **fare* cp. Gr. ἄγε. Such an *-i*, like Indg. *i* (see 3) had influence upon a preceding *e*; hence 2. pers. pl. **fariði* (Goth. *fariþ* OHG. dial. *ferit*): Gr. ἄγετε; acc. **mi-ki* (Goth. O.Icel. *mik* OHG. *mih* 'me'): Gr. ἐμέ-γε, etc. Cp. Kögel in Paul u. Br. Beitr. VIII 135 f.

5. In isolated cases, where no reason for the change has yet been discovered, especially in unaccented syllables: e. g. Nominal suffix prim. Germ. *-iz-* = Skr. *-as-* Gr. *-εσ-* Lat. *-es-* (Goth. *ag-iz-a-* 'fear'). Cp. Paul's article in Paul-Braune's Beitr. VI 85, Osthoff Zur Gesch. d. Perf. 419.

The West Germanic dialects in general stopped at this point. An *e*, preserved in uninterrupted continuity from the Indg. prim. language, is retained e. g. in OHG. *beran* 'to bear' = prim. Germ. **berana-n* (Gr. φέρειν) and *reht* 'right' = prim. Germ. **rehta-z* (Gr. ὀρεκτός).

Rem. 4. The change of *e* to *i* through the influence of a following *u* is questionable. E. g. in OHG. 1. pers. sg. *biru*, *nimu*, to *beran*, *neman*. *situ* m. 'custom', probably to Gr. ἔθος 'custom'. *sibun* 'seven': Lat. *septem*. *hiruz* 'stag' fr. prim. Germ. **xerut-* (with anaptyctic *u*, s. § 628): Gr. κέρας 'horn'. See Paul in Paul-Braune's Beitr. VI 78 f., Brate in Bezzenb. Beitr. XI 185, Braune Ahd. Gramm. p. 19.

The *i* also of the root syllable in *biris*, *birit* etc. might only have been produced in West Germanic through the following *i*.

The Norse dialects have also such an old *e*, e. g. O.Icel. *bera* = OHG. *beran*.

On the other hand every *e*, which had remained in prim. Germ., became *i* in Goth. Then this *i*, through the influence of a special Gothic law, which also concerned *i* = Indg. *i* (§ 35), became *e* (*ai*) again before *r* and *h*. *niman* 'to take', as opposed to OHG. *neman* O.Icel. *nema* = Gr. νέμειν. *ga-vigan* 'to stir, move', as opposed to OHG. *wegan* O.Icel. *vega* 'to move oneself' = Lat. *vehere*. *fill* (neut.) 'hide' (in *þruts-fill* 'leprosy'), but OHG. *fel* Ags. *fell* O.Icel. *fjall* 'hide' from **fella-* **felna-* (§ 214) = Lat. *pellis*, Gr. πέλλα; but *batran* from **biran* = OHG. *beran*, *raihts* from **rihts* = OHG. *reht*. The forms *airþeins* = OHG. *irdin* 'earthen' and *ga-raihtjan* = O.Sax.

rihtian OHG. *rihtan* 'to judge' may serve as evidence to show that *batran* and *raihts* had not an *e* which had been preserved in uninterrupted continuity through the influence of *r* and *h*. For it is scarcely possible to separate the *ai* in these forms from that in *airþa* 'earth' and *raihts* 'right'.

Indg. tautosyllabic *eu* appears in Goth. as *iu*. *kiusa* 'I choose, test, select': Gr. *γέομαι*, cpf. **gēus-ō*. *ana-biuda* 'I bid, command': Gr. *πείθομαι*, cpf. **bhéydhō*. *þiuda* 'people': Osc. *toitad* 'civitate', O.Ir. *tuath* 'people', cpf. **teyṭa-*. In High German it became, before *a-*, *e-*, *o-* vowels, in the oldest period *eo*, then *io*, in all other cases *iu*. *deota diota* 'people', but *diutisc* 'popularis' (Goth. *þiudiskō* adv. 'ἔθνικῶς'). *reozan riozan* 'to weep' = Goth. **riutan*: Skr. *rōdana-m* 'weeping' (noun), rt. *reyd-*. It is probable that the pronunciation *eu* still existed generally in prim. Germ. and that *iu* only arose at that time when there was an *i* in the following syllable, e. g. **þiudiskaz* (OHG. *diutisc*) beside **þeydō* (OHG. *deota*).

§ 68. Baltic-Slavonic. Lith. *vežù* O.Bulg. *vezq* 'I drive': Gr. Pamphyl. *ἴχω* Lat. *vehō* Goth. *ga-viga* Skr. *vāhami*, Indg. **uégħō* 'I move, drive'. Lith. *velkù* O.Bulg. *vlékq* from **velkq* (§ 281) 'I draw, drag': Gr. *ἔλκω* (cp. § 164 rem.), cpf. **uélqō*. Lith. *keturi* O.Bulg. *četyrije* 'four': Gr. *τέτταρες* Umbr. *petur-* O.Ir. *cethir* Skr. *catvār-as*. Nominal suffix *-ter-*, gen. pl. Lith. *mo-ter-ū* O.Bulg. *ma-ter-ŭ* 'matrum': cp. Gr. *μη-τέρ-ες*. Voc. sing. *vilké* O.Bulg. *vlŭče* 'wolf': Gr. *λύκε*, Lat. *lupe*. Personal suffix of the 2. pers. pl. Lith. *es-te* *žsa-te* O.Bulg. *jes-te* 'estis': cp. Gr. *ἐστέ*.

In Lith. *e* is mostly pronounced very open and in some southern and eastern dialects it regularly became *a*, when initial, e. g. *asù* = *esù* 'I am' (§ 666, 2).

Indg. hetero- and tautosyllabic *eu* apparently became *ou*, whence Balt. *au* (cp. § 84), already in the period of the Baltic-Slavonic prim. community.

a. Heterosyllabic: Lith. *av*, O.Bulg. *ov*. Lith. *tava-s* 'tuus', *sava-s* 'suus': Gr. *τε(Ὶ)ός-ς*, *ἐ(Ὶ)ός-ς*. O.Bulg. *novŭ* 'new': Gr. *νέφο-ς*. O.Bulg. *plovq* 'I flow, sail': Gr. *πλέ(Ὶ)ω*. O.Bulg. nom.

pl. *synove* 'sons' from **sāney-es*: cp. Gr. ἡδῆ(*F*)-ες, Goth. *sunjus* 'sons' from **sunijus* prim. Germ. **suney-ez* (§ 179), Skr. *sūnāv-as*. — Lith. *devyni* Lett. *dewīni* 'nine', Pruss. *newīnts* 'the ninth', O.Bulg. *devetī* 'nine' are to be explained as being formed from analogy with Lith. *dėszimt* O.Bulg. *desetī* 'ten'; we may observe also that the initial *d-* instead of *n-* cannot well be explained otherwise than as being borrowed from the word for ten.

Rem. 1. It is doubtful whether the *d-* of the Lith. and Lett. word for 'nine' was due to Slavonic influence and *ney-* was the right form in prim. Baltic, which was retained in Pruss., or whether already in prim. Baltic-Slavonic *dey-* took the place of *noy-* and the *n-* of the Pruss. form was borrowed from Germ. (cp. Bopp. Vergleich. Gramm. I³ 76, Fick Wörterb. II³ 588. 744, Brückner Litu-Slav. Studien I 80, Osthoff Morph. Unt. I 93).

b. Tautosyllabic: Lith. *au*, O.Bulg. *u* (fr. *oy* § 185). Inf. Lith. *pláu-ti* 'to rinse' O.Bulg. *plu-ti* (1. sing. pres. *plovā*), supine Lith. *pláu-tu* O.Bulg. *plu-tū*: cp. Gr. ἔπλευν-σα, Skr. inf. *plōtu-m* (3. sing. pres. mid. *plāv-a-tē* 'he swims'). Lith. *raudmi* (an archaic pres. form, now *raudóju*) 'I lament, complain': Skr. *rōdi-mi* 'I lament, weep', Indg. **réd-mi* or **réd-mi*. Lith. *raugiū* 'I belch': cp. Gr. ἐρῶγομαι. Lith. *naūje-s* 'new': Goth. *niuji-s* 'new'. O.Bulg. inf. *sluti* 'to be called', supine *slutū*: Skr. inf. *śrōtu-m* 'to hear', to O.Bulg. *slovo* (stem *sloves-*) 'word': Gr. κλέφος Skr. *śrávas* (neut.) 'renown'.

Heterosyllabic Indg. prim. Baltic-Slav. *eī* became *ī* in prim. Slav. and this *ī* was, in the period of Old Church Slavonic, lengthened to *ī* (cp. § 36 page 37). O.Bulg. *vījā vijā*: Lith. *vejū* 'I turn, wind', Skr. *váyāmi* 'I weave', Indg. **uēīō*. Nom. pl. *gostīje, gostije* 'guests' (nom. sing. *gostī*) from **gostei-e(s)*: cp. Skr. *āvay-as* 'oves'. *trīje trije* 'three': Skr. *tráy-as*, Indg. **tréī-es*.

Indg. tautosyllabic *eī* appears in Lith. as *ei* and *ē*, in Slavonic as *i*. The course of development of the latter was **eī*, **ī* (**ī*), *ī*, cp. the change of heterosyllabic *eī*. Lith. 1. sing. *eimī* 'I go', 3. sing. *eīti* (Pruss. *ēit*): Gr. εἶμι εἶσι; supine *eītu* O.Bulg. *itū*: Skr. inf. *ētum* from Indg. **eī-tu-m*, rt. *eī-*. Lith. *szlei-va-s szlei-vi-s* 'having crooked legs' (Lett. *slēi-ja* 'stripe', *slēi-ju* 'I lean against'): Gr. κλει-τύ-ς, rt. *klei-*. Lith. *vėidu-s* 'face' O.Bulg. *vidū*

'looks' (noun), Lith. *vėizdžiu* 'I see' (for the *z* cp. § 547 rem.), O.Bulg. *vīzdaq* 'I look' from **uīdāq* (§ 147): Gr. *φείδομαι*, *φείδος*. Lith. *geidžiū* 'I long for', Pruss. 3. pl. *geide* 'they wait', O.Bulg. *židq* 'I wait'. Lith. *deivỹ-s* 'idol' *deivė* (fem.) 'ghost' beside *dėva-s* (Lett. *dīvs*) 'god', Pruss. *deiwa-s* 'god': Lat. *deivos dīvus*. Lith. *žė-mà* (Lett. *fīma*) O.Bulg. *zi-ma* 'winter': Gr. *χειμα*, *χειμῶν*. Lith. *dė-nà* (Lett. *dīna*) 'day', Pruss. *dei-na-n* acc. sing. 'day' from a stem **deḡ-n-* (**deḡ-en-*) beside **di-n-* (O.Bulg. gen. *dī-n-e* 'day's'). Lith. *snėga* (Lett. *snig*) 'it snows': Gr. *νίφει*, rt. *sneigh-*. Lith. *lėkù* 'I leave' (Lett. *liku* 'I lay'): Gr. *λείπω*, rt. *leḡq-*. O.Bulg. *pišq* 'I write' from **pīs-iaq* (§ 147): Gr. *πρίκω* 'I scratch' rt. *peḡk-*.

Rem. 2. The circumstances, under which *eḡ* at one time remained (*ei*) in Lith., and at another time became *ē*, have not been ascertained (cp. Mahlow Die langen Vocale A, E, O, page 143 f. and Osthoff Morph. Unt. IV 112). We are inclined to think that only circumflexed *ei*, e. g. in *eīti* 'to go' (cp. § 691), regularly became *ē* when the following consonant had not a palatal timbre, caused by an *é-* or *i-* vowel in the next following syllable (cp. the double forms *ē* and *ia* in Irish § 66); hence *dėvas* beside *deivỹs* *deivė*, *eim* beside *lėkù*. The supine *eītu* instead of **ētu* would have been formed after the analogy of *eīti*; *eīnù* *eīna* 'I go' 'he goes' (instead of **ēnù* **ēna*) with *ei-*, because they were not formed until after this sound-law had ceased to operate. Such verbs as *lėžiù* *lėszti* 'to lick' = O.Bul. *ližq* (from **liz-iaq*) beside such as *geidžiū* *geīsti* (Leskien Der Ablaut in Wurzelsilben im Litauischen p. 144 f.) present difficulties. For it is certainly hardly probable that the few forms as sup. *lėsztu* etc. could have extended their *ē* to the whole verb. Cp. the change *ai:ē* § 84 rem. 2.

en, *em* before explosives and spirants became *ē* in Slavonic e. g. *svetū* 'holy', *zėbaq* 'dilacero, frigeo'. S. § 219.

Indg. *ē*.

§ 69. Indg. *dhē-* 'set, lay': Skr. fut. *dhā-syāmi dhāna-* (neut.) 'position', Gr. fut. *θήσω*, Goth. *ga-dēps* (st. *ga-dēdi-*) 'deed, position', Lith. fut. *dė-siu* inf. *dė-ti*, O.Bulg. aor. *dě-chū* inf. *dě-ti*. Indg. *plē-* 'fill': Skr. part. *prā-tá-*, Arm. *li* (gen. *lioy*) 'full' from **plē-ḡo-s*, Gr. *πλήρης* 'full' aor. *ἔπλησα*, Lat. *plē-nu-s im-plē-tu-s*, O.Ir. *līn* 'numerus, pars', O.Icel. *fleire fleiri* 'more' (from st. **flē-iz-en-*, cp. § 614).

Optative suffix Indg. *-iḡē- -iē-*: 2. pers. sing. Skr. *s-iyā-s s-yā-s*,

Gr. *εῖης* from **ēs-ιη-*, Lat. *s-iē-s* from rt. *es-* 'be'. *-tē(r)* nom. sing. ending of *-ter*-stems: Skr. *mā-tā* Arm. *mair* from **mā-ter* Gr. Dor. *μά-τηρ* 'mother', Lith. *mo-tė* and *mó-tė* 'wife, married woman', O. Bulg. *mati* from **mātē* 'mother'. *-ē* Indg. ending of the instr. sing. of *o*-stems: Skr. *uccā* 'above', Gr. Lacon. *πή-ποκα* 'usquam' or 'unquam', Goth. *þē* to *þa-* 'the', *hwē* to *hva-* 'who' ¹⁾).

Perfect stem Indg. *ēd-* from rt. *ed-* 'eat': Skr. part. *ad-i-vān*, Gr. *ἐδ-ηδ-ώς*, Lat. *ēd-imus*, Goth. *ēt-um*, Lith. part. *ēd-ęs*, O. Bulg. part. *jad-ŭ*. Imperfect stem Indg. *ēs-* from *es-* 'be': Skr. 1. sing. *ās-am* 3. sing. *ās*, Gr. 1. sing. Hom. *ῆα* 3. sing. Dor. *ῆς*, Indg. 1. sing. **ēs-ṃ* 3. sing. **ēs-t*. Cp. § 114.

The tautosyllabic diphthongs *ēi* and *ēu* probably did not frequently occur in the prim. language. E. g. Imperfect stem Indg. *ēi-* from *ei-* 'go': 2. sing. Skr. *atś*, Indg. **ēi-s*. **plēistó-* 'most': Gr. *πλεῖστο-ς* O. Icel. *flestr* (§§ 116, 611, 614). Nom. sing. Indg. **dīēu-s* 'sky': skr. *dyāuś*, Gr. *Ζεύς* from *Ζηϋς* (§ 611).

§ 70. Aryan. 3. sing. pret. Skr. *á-dhā-t* Avest. *da-ḥ* O. Pers. *a-da* from rt. *dhē-* 'put'. Skr. *vā-ti* Avest. *vāiti* 'it blows': Gr. *ἄ(f)η-σι* 'it blows', OHG. *wāan* 'to blow', Lith. *vė-je-s* 'wind', O. Bulg. *vě-je-tŭ* 'it blows', rt. *ue-*.

The change from *ē* to *a* took place in the prim. Aryan period, after the vowel (like Indg. *e*) had palatalised the preceding *q*-sounds, e. g. Skr. *-jāni-ś* 'wife, spouse': Goth. *qēns* (st. *qēni-*) 'wife', Indg. **gēni-* (§ 445).

For Avest. *ē*, *ō*, *ā* from prim. Iran. prim. Aryan *a* = Indg. *ē* see § 102.

§ 71. Armenian. *mi* 'that not': Skr. *mā*, Gr. Dor. *μή*. *mit* (Gen. *mti*) 'sense': Gr. *μῆδος* 'advice' *μῆδομαι* 'I contrive', O. Ir. *ro mīdar* 'iudicavi' (cp. § 314). *li* 'full', aor. 3. sing. *e-li-ç* 'he filled', Indg. *plē-* (§ 69). This *i* disappeared in non-final syllables. Besides gen. *mt-i* cp. further gen. *amsoy* 'of the month' beside nom. *amis* (*-s* from *-ns* § 202): Gr. Lesb. gen.

1) Skr. *uccā* is not a certain example for Indg. *-ē*, since it might also represent Indg. *-ō*. The *ē*-type must, at all events, be claimed for the prim. Indg. language. s. §§ 114, 115.

μῆνν-ος (cp. § 72); *l-nu-m* 'I fill': Lat. 3. pl. *ex-plē-nu-nt*, O.Ir. *li-naim* 'I fill'.

The representation by *ē* in *αλυῆς* 'fox' beside Gr. *ἀλώπηξ*, Skr. *lōpaśa-* is uncertain (Hübschmann Kuhn's Ztschr. XXVI 603).

§ 72. Greek. *ῖημι* from **σι-ση-μι* 'I throw, jerk, send off' *ῖ-μα* 'a throw': Lat. *sē-men*, O.Ir. *sī-l* 'seed', Goth. *mana-sēþs* 'mankind, world', Lith. *sėjū* O.Bulg. *sějā* 'I sow' *sē-me* 'seed', rt. *sē-* 'throw, sow'. *μήν*, gen. *μην-ός* Lesb. *μῆνν-ος*, 'month' (concerning nom. sing. *μείς* cp. § 611) *μήνη* 'moon': Skr. *mās-* 'moon', Arm. *amis* (gen. *amsoy*) 'month', Lat. *mēns-i-s* (cp. however, § 612), O.Ir. *mī* (gen. *mīs*) 'month' (cp. §§ 212. 574), Goth. *mēna* 'moon', Lith. *mėnà* (gen. *mėnes-io*) 'moon', O.Bulg. *měsēcǎ* 'moon' (cp. §§ 220. 221). *ἥβᾱ ἥβη* 'youth': Lith. *jėgiù* 'I am able'. Nom. *δυσ-μενής* 'evil disposed, hostile': Skr. *dur-manās* 'downcast, sad', cpf. **dus-menēs*.

This *η*, which was probably pronounced open in prim. Greek, and which is marked as open *ē* in Lesb. by the spelling *αι* (*αἰμίσεων*: Lat. *sēmi-* 'half'; *Αἰσίοδος* = Dor. Att. *Ἡσίοδος* Boeot. *Εἰσίοδος*), became *α* in Elean, e. g. *μά, εἰᾱ, πατᾱρ*, whereas in Boeot. and Thessal. it became closed *ē* which, after the introduction of the Ionic alphabet, was represented by *ει*, e. g. Boeot. *μεῖνα, πατεῖρ*, Thess. *ύστερο-μειννῖᾱ, εἰβᾱ*; the latter pronunciation can also be established for the Ionic dialects (§ 104).

§ 73. Italic. Lat. *fē-mīna* 'woman' *fē-lō* 'I suck', Umbr. *feliuf filiu* 'lactantes' *fel.* (abbreviation) 'filius': Arm. *di-em* 'I suck' (aor. *di-eç-i*), Gr. *θή-σατο* 'he sucked' *θη-λή* 'teat, nipple', O.Ir. *dī-nu* 'lamb', OHG. *tāan* 'to suckle', Lith. *dėlė* 'leech' *pirm-dėlỹs* 'first-birth', O.Bulg. *dě-tę* 'infans', Skr. *dha-trī* 'wetnurse'. Lat. *plē-nu-s*, Umbr. *plener* 'plenis': Gr. *πλή-ρης*. Lat. *mēns-i-s*, Umbr. *menzne* 'mense' (i. e. *mentsne* from **mensne*, § 209), *se-menies* 'semenstribus': Gr. *μήν*; for the Lat. *ē* cp. § 612. Lat. *rē-s*, Umbr. *re-per* 'pro re' abl. *ri* 're': Skr. *rā-s* 'wealth, treasure, kingdom'. Lat. *rēx rēg-is*, Osc. *regatureī* 'rectorī', Marruc. *regen[a* dat. 'reginae': O.Ir. *rī* (gen. *rīg*) Skr. *rājan-* 'king'. Lat. *lēx lēg-is, lēgātū-s*, Osc. *ligud* 'lege' *līgatúis* dat. 'legatis', prim. Ital. stem *lēg-*. Lat. *diēs diem, diē-cula*, Osc.

zi-colois 'diebus' (to which probably also *d]iíkúlús* pl. 'dies'): cp. Skr. acc. *dyām* 'sky, day', Gr. *Zḗv* (§ 188).

The fluctuation of the spelling *e*, *i* in Umbr. and *e*, *í*, *i*, *eí* in Osc. points to a close *ē*. Since orig. long *e* is represented on the tab. Bant. by *i*, and on the cippus Abell. by *í*, while the new *ē*, which arose from the lengthening of *ē* on Ital. soil, is represented by *e*, we must conclude that the latter had a more open sound in Osc.

That Indg. *ē* had a close pronunciation also in Lat. follows from such spellings as *pleib[es*, *leigibus* on inscriptions (see §§ 41, 65).

The *ī*, which arose from *ē* in Lat. *filius* (*fē-*), *suspiciō* (*spēc-*), *conviciu-m* (*vēc-*, rt. *ueq-* in *vocāre*) is by Osthoff, perhaps rightly, assigned to the influence of the following *i* (*ī*); cp. also *dē-līniō* beside *dē-lēniō*, *sub-tilia*.

§ 74. Old Irish. In accented stem-syllables *ī*. *fīr* 'true': Lat. *vērū-s*, Goth. *tuz-vērjan* 'to doubt', O.Bulg. *věra* 'faith'. *mīl* 'animal': Gr. *μῆλο-ν* (Boeot. Thess. *μεῖλο-ν*).

The other Kelt. dialects also present *ī* (*i*), e. g. O.Cymr. O.Bret. *-ri* = O.Ir. *rī* 'rex', O.Corn. O.Bret. *guir* = O.Ir. *fīr* 'verus' and so also Gall. *ī* in *rīx* 'rex' (*Catu-rīges* etc.). The great antiquity of this sound-change would also be supported by the Germ. **rīk-* 'ruler' (Goth. *reiks*), if this, as it is believed to be, was borrowed from Kelt. *rīg-* in prim. Germ. times.

Rem. The form *Dubno-rex* beside *Dumno-rīx* (Zeuss-Ebel G. C. 20) is due to the influence of Lat. *rēx*.

Concerning the treatment of *ē* in secondary accented syllables see §§ 613. 634. 657.

§ 75. Germanic. Prim. Germ. open *ē*. Goth. *ē*, which was pronounced very close, as follows most clearly from the pretty frequent spelling *ei*, e. g. *qeins* beside *qēns* 'wife' (occasionally also *i*, e. g. *spidists* beside *spēdistis* 'the last'). German *a*. This change to *a* had its beginning in High German, where it is first found in Bavarian (about 170 A.D). From thence it was gradually extended to North Germany. *a* was

established in Franconian in the seventh century, but in Saxon not until several centuries later. See Bremer in Paul and Braune's Beitr. XI p. 1 ff. *a* is found in Norse already in the oldest runic monuments, e. g. *-marix* = Goth. *-mērs* (*váila-mērs* 'of good report'). I must leave the difficult question undecided as to whether Ags. *æ* and O.Fris. *ē* represent the retention of the prim. Germ. *e*-quality, or have passed through the intermediate stage *a*. Bremer and Siebs (in the above named work p. 12 ff. and 226 ff.) accept the first theory.

Rem. 1. *ē*, in unaccented syllables, seems not to have undergone the change to *ā*, but to have retained its quality; unaccented prim. Germ. *ē* appears in OHG. OS. as *e*, and in ON. as *e*, *i*. See Bremer's article in the above named work p. 29 ff.

Goth. *mana-sēps* 'mankind, world', Ags. *sēd* O.Fris. *sēd* OHG. *sāt* OS. *sād* 'seed': Lat. *sē-men* O.Bulg. *sē-mę* 'seed', rt. *sē-*. Goth. *ga-dēps* Ags. *dæd* OHG. *tat* OS. *dad* 'deed': Gr. *θή-σω*, Lith. *dē-siu* 'I shall place' rt. *dhē-*. Goth. *ga-rēdan* 'to reflect', Ags. *rædan* O.Fris. *rēdu* OHG. *ratan* OS. *radan* O.Icel. *rāða* 'to advise': Lat. *rē-rī* 'to think' *rē-bar*. Goth. *nēpla* OHG. *nādala* 'needle', OHG. *nāan* 'to sew': Gr. *νήμα* 'yarn', *νήτρο-ν* 'distaff', Lat. *nēmen* 'yarn, thread' *nētus* 'spun', rt. *snē-nē-* (§ 589, 3). OHG. *sāmi-* 'half' *sāmi-quek*: Gr. *ἡμι-βιος* Lat. *sēmi-vīvos* 'half-alive', Skr. *sāmi* adv. 'half', Indg. **sēmi*.

Concerning Goth. *ai* fr. Indg. *ē* in *saia* 'I sow' fr. rt. *sē-*, see § 142.

Rem. 2. Side by side with prim. Germ. open *ē* there existed also a close *ē*, which appears in Goth. also as *ē*, in OHG. as *ea*, *ia* (OS. *ē*. O.Icel. *ē*), as Goth. *hēr* OHG. *hear* *hiar* OS. *hēr* O.Icel. *hēr* 'here', Goth. *fēra* 'side, country, district', OHG. *feara* *fiara* 'side, part', OHG. *heaz* *hiaz* O.Icel. *hēt* 'I was called', OHG. *leaz* *liaz* O.Icel. *lēt* 'I left'. The origin of this prim. Germ. *ē* has not yet been satisfactorily explained. (cp. the chapter on Germ. strong preterites in the accidence). The sound can scarcely be traced back in any case to an Indg. *ē*.

§ 76. Baltic-Slavonic. Lith. *spėjū spėti* 'to have leisure, or time for a thing, to be quick enough', O.Bulg. *spējā spėti* 'to progress, to have success': Lat. *spē-s spēr-are*, Goth. compar. *spēdiza* 'later' OHG. *spāti* 'late'. Lith. *dėdė* 'uncle', O.Bulg. *dědū* 'grandfather': Gr. *τῆθῆ* 'grandmother' *τῆθίς* 'aunt'. O.Bulg.

mēra 'measure': Lat. *mētior* 'I measure', Goth. *mēl* 'time' (O.Icel. *māl* 'measure, time', OHG. *māl* 'mark, sign'), Skr. *mātra* 'measure'. Verbal stems in Lith. *-ē* O.Bulg. *-ē*, e. g. Lith. *sėdėti* O.Bulg. *sědē-ti* 'to sit': cp. Lat. *sēdē- sēdere*.

Throughout the whole domain of Lithuanian *ē* is pronounced very close, and in some places can hardly be distinguished from *y* (*ī*).

In Slavonic the sound-combinations *kě*, *gě*, *chě*, *jě* passed into *ča*, (*d*)*za*, *ša*, *jā* (cp. §§ 461—464. 588). O.Bulg. inf. *kricati* 'to scream' fr. **krikēti*: *krikū* 'scream, cry'. *běžati* 'to flee' fr. **bégēti*: *běgū* 'flight'. *slyšati* 'to hear' fr. **slychēti*: cp. *sluchū* 'a hearing'. *stojati* 'to stand' fr. **stojēti*.

In like manner initial *ē*- became *ja*-. *jastī* 'eats': Lith. *ėst(i)* 'eats like an animal', cp. Lat. *ēst*. *ēd*- became first **jēd*-, as *jestī* fr. **estī* = Gr. *ἔσσι* (§ 666, 1), then *jad*- as *stojati* fr. **stojēti*.

Final *-ē* became *-i*. Nom. *mati* 'mother', = Lith. *motė* 'wife' Skr. *mātā* 'mother', cpf. **mātē*. cp. §§ 84. 665, 3.

Indg. *o*.

§ 77. Indg. 3. sg. pf. act. Indg. **de-dōrk-e* fr. rt. *derk-* 'see': Skr. *dadārśa*, Gr. *δέδορκε*; Lat. *memordit momordit* 'he bit', Skr. *mamārda* 'he rubbed, ground' fr. rt. *merd*-; Goth. *band* Skr. *babāndha* 'he bound' fr. rt. *bhendh*-; Gr. *γέγωνε* Skr. *jajāna* fr. rt. *jen*- 'gignere'. 1. sg. pres. act. causat. Indg. **dōrkējō* 'let see' fr. rt. *derk*-: Skr. *darśáyāmi* 'let see', Goth. *ga-tarhja* 'mark'; Gr. *ὀξέω* 'let go, ride', mid. 'go, ride, swim', Goth. *vagja* 'move', O.Bulg. *vožq* fr. **voziq* (§ 147) 'let go', Skr. *vaháyāmi* 'let go, run' fr. rt. *uegh*-; Lat. *torreō* fr. **torsejō* (§ 134) 'cause to dry up', Skr. *tarśáyāmi* 'let thirst, languish', OHG. *derran* O.Icel. *þerra* 'to dry, wither' fr. prim. Germ. **parziyana-n* (cp. Goth. *ga-þairsan* 'to wither') fr. rt. *ters*-. Indg. *o* in the root syllable of nominal stems, and the *-o-* which serves to form nominal stems: Arm. suffix *-a-vor* (properly 'bearing, bringing', cp. Mod.HG. *-bar*) in *lus-a-vor* 'clear' (§§ 332. 485), Gr. *λευκο-φόρος*, cpf. **bhorō-s*; Gr. Acc. *ὄχο-ν* 'waggon, carriage' O.Bulg. acc. *vozū* 'waggon, carriage',

cpf. **uoǵho-m*; Lat. *procu-s* 'wooper' to *precor* 'I beg'; Goth. *dags* fr. **ǵaza-z* 'day' (the flexional -a- retained in Norse runic inscriptions: *dagaŕ*), Lith. *isz-daga-s* 'burnt out place' *dāga-s* m. (beside *dagà* f.) 'harvest' properly 'hot season, time', Skr. *dāha-s* 'burning, fire-brand' *ni-dāghá-s* 'heat, hot season, summer', Indg. **dhogho-s* fr. rt. *dhegh-* 'burn'; Skr. *tāna-s* Gr. *τόνο-ς* 'thread, string' from rt. *ten-* 'stretch out, extend': Skr. *vfka-s* 'wolf', Gr. *λύκο-ς*, Lat. *equo-s lupu-s*, O.Ir. *fer* 'man' fr. **μi-ro-s* (in Gall. still the prim. form of the ending, e. g. *tarvo-s* 'bull'), Goth. Acc. pl. *vulfa-ns* 'lupos', Lith. *vilka-s* 'wolf', O.Bulg. dat. du. *vlūko-ma* to nom. sg. *vlūkū* 'wolf'. Indg. pronominal stem **to-* 'this, the', nom. acc. neut. Skr. *tá-d*, Gr. *τό*, Lat. *istu-d*, Goth. *þa-t-a*, O.Bulg. *to*, Indg. **tó-d*. The so-called thematic vowel -o-, e. g. Indg. pres. stem **bhero-* fr. rt. *bher-* 'carry, bear': 3. pl. Skr. *bhāra-nti* 1. pl. *bhārā-mas*, Gr. Dor. *ῥέρο-ντι ῥέρο-μες*, Lat. *vīvo-nt feru-nt*, Goth. 3. pl. *baíra-nd* 1. pl. *baíra-m*, Lith. 1. pl. *vėža-me* (*vežū* 'I ride'), O.Bulg. 3. pl. *vezqñ* fr. **vezo-nñ* (§ 219) aor. 1. pl. *vezo-mū* (1. sg. pres. *vezq* 'ride'), -os Indg. suffix of the gen. sing. (beside -es in O.Bulg. *kamen-e* Lat. *patr-is*, § 81. rem. 1) : Gr. *πατρ-ός*, O.Lat. *patr-us*, O.Ir. *athar* fr. **pater-os* or **patr-os*.

Indg. **oktō* **oktōy* 'eight': Skr. *aṣṭā aṣṭāu*, Arm. *uṣ*, Gr. *ὀκτώ*, Lat. *octō*, O.Ir. *ocht* Goth. *ahtáu*, Lith. *asztūni* O.Bulg. *osmñ*. Indg. **poti-s* 'master' **potnī* 'mistress': Skr. *pātnī* 'mistress', Gr. *πόσι-ς* 'husband' *πόρνια* 'lady, mistress', Lat. *poti-s* 'capable, able', Goth. *brūþ-faþs* 'bridegroom', Lith. *pàts* 'husband', *vėsz-patis* 'sovereign master'. Skr. *ákṣi* neut. 'eye', Arm. *ač-k* pl. 'eyes', Gr. *ὄσσε* du. 'eyes' fr. **ok*īe* (§ 489), *ὄψομαι* 'I shall see', Lat. *oculu-s*, Lith. *akl-s* 'eye', O.Bulg. *oko* neut. 'eye'. Indg. **pró* 'before, in front, forth': Skr. *prá*, Gr. *πρό*, O.Ir. *ro*, Goth. *fra-*, Lith. *pra-* O.Bulg. *pro-*. Personal ending of the 3. sg. mid. Indg. -to : Skr. *ābhara-ta*, Gr. *ἐφέρε-το*.

Indg. tautosyllabic *oī*. 3. sg. pf. Indg. **uoīd-e* 'he knows': Skr. *vēda*, Gr. *φοῖδε*, Goth. *vāt*; O.Bulg. *věmñ* fr. **véd-mñ* 'I know' (the pf. personal endings have been replaced by the pres.) also represents the stem **uoīd-*; 3. sg. pf. Indg. **le-lóiq-e* 'has

left' : Skr. *rirēca*, Gr. *λέλοιπε*, Goth. *láihs*. Indg. pres. causat. **uoǐdējo-* fr. rt. *ueǐd-* 'see, know' : Skr. *vēdáyāmi* 'I let know, communicate', OHG. *weizen* (prim. Germ. **waǐtjāna-n* 'to cause to know, prove'; O.Bulg. *béditi* 'to compel', Goth. *báidjan* OHG. *peittan beitan* 'to compel', cpf. 1. sg. pres. **bhoǐdhéjō*. Gr. *λοιπό-ς* 'remaining', Lith. *lėka-s* 'remaining single, odd' *āt-lėka-s* and *āt-laika-s* 'remnant, remainder' O.Bulg. *otŭ-lėkŭ* 'remnant' fr. rt. *leǐq-*. Av. *kaenā-* fem. 'penalty, punishment', Gr. *ποινή* 'ransom, reward, penalty', O.Bulg. *cěna* 'pretium' (Lith. *kaina* according to Mikuckij in Geitler Fonolog. 38. 110), cpf. **qoǐnā-* 'ransom' fr. rt. *qeǐ-*. Indg. nom. pl. masc **toǐ* fr. stem *to-* 'this, the' : Skr. *tē*, Gr. *τοί*, Lat. *istī* (cp. *poploe populī*), Goth. *þái*, Lith. *tē* O.Bulg. *ti*. The gen. sg. of *ei*-stems in Indg. *-ois* : Skr. *ávēṣ* (*ávi-ṣ* 'ovis'), Goth. *anstáis* (*anst* 'favour'), Lith. *akės* (*akì-s* 'eye') O.Bulg. *pāti* (*pātī* 'way'). The optative of the thematic tenses with Indg. *-oi-*, 2. sg. **bhéroi-s* (indic. 2. sg. **bhére-si* 'thou bearest') : Skr. *bhārēṣ*, Gr. *qéροις*, Goth. *baíráis*, O.Bulg. *beri*, Lith. 3. sg. (permissive) *te-sukē* (*sukū* 'I turn').

Indg. tautosyllabic *ou*. 3. sg. pf. Indg. **bhe-bhóudh-e* 'has waked, marked' : Skr. *bubódha*, Goth. *báuþ*; Gr. Hom. *εἰλήλουθε* (with the added Attic reduplication) beside *ἐλεύσομαι* 'I shall come'. Pres. causat. Indg. **bhouǐdhéjō* 'I cause to awake, wake, remind' : Skr. *bōdháyāmi*, O.Bulg. inf. *buditi*; Goth. *káusja* 'I taste, test', Skr. *jōṣáyātē* mid. 'likes, finds pleasure in', Indg. 1. sg. **ǵouséjō*. The Gen. sg. of *eu*-stems in Indg. *-ous* : Skr. *sūnóṣ* (*sūnū-ṣ* 'son'), Osc. *castrovs* (*castru-* 'fundus'), Goth. *sunáus* (*sunu-s* 'son'), Lith. *sūnaūs* (*sūnū-s* 'son') O.Bulg. *synu* (*synū* 'son').

§ 78. Aryan. Indg. *o*, in closed syllables and finally became *a* in the prim. Ar. period. 3. sg. pf. Skr. *tatákṣa* Av. *tataša* 'has made, created' fr. rt. *teḷs-* (cp. § 401), prim. f. **tetókse*. Skr. *aṣṭá* Av. *ašta* 'eight' : Gr. *ὀκτώ*. Skr. *bhāra-nti* Av. *bara-inti* : Gr. Dor. *qéρο-ντι*. Skr. *ābhara-m* O.Pers. *abara-m* : Gr. *ἔqερο-ν*. Skr. opt^{mid} *bhārē-ta* Av. *barae-ta* : Gr. *qéροi-ro*.

Indg. tautosyllabic *oi*, *ou* became in prim. Ar. *ai*, *au*, thence Skr. *ē*, *ō*, Av. *aē* *ōi*, *ao* *ēu*, O.Pers. *ai*, *au* (cp. §§ 126. 160).

1. *oi*. Prim. Ar. perfect stem **uaǐd-* = Indg. **uoǐd-* fr.

rt. *yeid-* 'see, know': Skr. 3. sg. *vēda* 2. sg. *vēttha* Av. Gāp. *vaēdā vōisthā* : Gr. *οἶδε οἶσθα*. Prim. Ar. **ai-ua-* = Indg. **oi-uo-*, Av. *aēva-* O.Pers. *aiva-* 'unus' : Gr. *οἷ(f)ο-ς*. Prim. Ar. optative stem **bhara-* = Indg. **bhero-* fr. rt. *bher-* 'bear' : Skr. 1. pl. *bhārēma* 3. sg. *bhārēt*, Av. 1. pl. *baraēma* 3. sg. *barōi-* : Gr. *φέρουμεν φέροι*. Final *aē* became *ē* in Av. : *tē* nom. pl. 'hi' beside *taē-ca tōi* Skr. *tē* Gr. *τοί*, Indg. **to-* 'the, these', cp. O.Pers. *tyaiy* (read *tyai*) 'qui' fr. stem **tō-*.

2. *ou-* Prim. Ar. causative stem **bhaudhā-* = Indg. **bhoudhē-* fr. rt. *bheudh-* 'wake' : 3. sg. Skr. *bōdhāya-ti* Av. *baodāyēiti*, cp. O.Bulg. inf. *buditi*. Prim. Ar. *-aυς* = Indg. *-ous*, the ending of the Gen. sg. of *eu-*stems, Skr. *sūnōṣ* 'fili', Av. *vayuoṣ* 'aëris', O.Pers. *kūrauṣ* 'Cyri'.

In Aryan *a* = Indg. *o* can still be distinguished from *a* = Indg. *e* (§ 62), in so far as *q*-sounds were not palatalised before it, e. g. prim. Ar. fem. **kaīnā-* (Av. *kaēnā-* 'penalty') fr. Indg. **qoi-nā-* (cp. Gr. *ποινή*) beside prim. Ar. pres. 3. sg. mid. **caī-atai* (Skr. *cāyatē*) fr. Indg. **qeī-e-tai*. See § 445 ff.

Indg. *o* in open syllables probably became *a* in the prim. Ar. period. Acc. sg. Skr. *pād-am* Av. *pād-em* 'pedem' : Gr. *πόδ-α*. 3. sg. pf. Skr. *ja-jān-a* 'genuit' : Gr. *γέγον-ε*; Av. *da-ḍar-a* = Skr. *da-dhār-a* 'held fast', fr. rt. *dher-* (Lith. *deriù* 'I hire'). Causat. Skr. *dhārāyāmi* Av. *dārayēmi* O.Pers. *dārayāmīy* (read *-mi*) fr. the same rt. *dher-*; Skr. *bhārāyāmi* Av. *barayēmi* fr. rt. *bher-* 'bear' : Gr. *φορέω*; Skr. *sādāyāmi* Av. *hādāyēmi* O.Pers. *hādayāmīy* (read *-mi*) fr. rt. *sed-* 'sit' : Goth. *satja*. Skr. *jānu* 'knee' : Gr. *γόνυ*. 1. pl. Skr. *bhāra-masi* Av. *barā-mahi* 'ferimus', O.Pers. *pahyā-mahy* (read *-mahi*) 'dicimur' : Gr. Dor. *φέρο-μες*. Acc. sg. Skr. *āśmān-am* O.Pers. *asmān-am* 'stone' : Gr. *ἄκμων-α* 'anvil', cp. Goth. *ahman* 'spirit'; Skr. *tākṣaṇ-am* 'carpenter' Av. *taśān-em* 'creator' : Gr. *τέκτον-α*; Skr. *svāsār-am* 'sister' : O.Ir. *siair* cp. Goth. *svistar*; Skr. *dātār-am* Av. *datār-em* 'giver' : Gr. *δώροα*; nom. pl. Skr. *nāpāt-as* Av. *napāt-ō* 'descendants, grand-children' : Gr. *véνοδες* (concerning *δ* instead of *τ* see § 327). Participial suffix Skr. Av. *-āna-* (Skr. *dādh-āna-* Av. *daḥ-āna-* fr. rt. *dhē-* 'set, do', Skr. *juṣ-*

-*aná*- fr. rt. *geys*- 'taste'): Goth. -*anu*- (*baúr-ans*, *gib-ans* etc.), perhaps also Gr. -*ovo*- (e. g. *Kρ-όvo-ς* = Skr. *kr-aná-s* 'efficient, active', see Osthoff Morph. Unt. IV 374, and on the other hand Froehde Bezenb. Beitr. VII 322).

Rem. Some scholars, especially Collitz and Joh. Schmidt, dispute the validity of this sound-law and assume that Indg. *o* was in every case regularly represented by *a* in Aryan. I too am still fqr from considering my theory given above as mathematically certain (cp. Morph. Unt. III 129). But the difficulties, which it leaves unexplained, seem to me to be less and easier to dispose of than those which the hypothesis of Collitz and Schmidt presents. Nor does Collitz's latest treatment of the graded declensions (though containing certain acute ideas which further the subject) convince me of the validity of his standpoint, since among other things it leaves the distribution of *e* and *o* in the Germanic declension (*ahmins*, *ahmin* : *ahman*, *ahmans*) unexplained. Cp. the author's articles in Stud. IX p. 367 ff. p. 380 ff. and Morph. Unt. III 102 ff., Collitz Bezenberger's Beit. III p. 291 ff., X p. 2 ff., Joh. Schmidt Kuhn's Ztschr. XXV p. 2 ff., Osthoff Morph. Unt. I p. 207 ff., IV p. XV and pp. 226. 303. 368 ff., Hübschmann Das Indg. Vocalsystem 1885.

Concerning Av. *e*, *i*, *e*, *o* fr. prim. Iran. prim. Ar. *a* = Indg. *o* see § 94.

§ 79. Armenian. *ost* 'branch': Gr. ὄστος Goth. *asts* 'bough', cpf. **ozdo-s*. *orb* 'orphan': Gr. ὀρφo- in the pl. compound ὀρφo-βόται (*ἐπίτροποι ὀρφανῶν*, Hesych.), Lat. *orbu-s*. The nominal suffix -*o*-: *mardo*- 'man', gen. *mard-o-y*, cp. Gr. -*o-io*, Indg. *-*o-sio*.

o is often weakened to *u*, a process which may be regarded as regular for the combination of *o* with a following nasal + consonant. -*sun* in *ere-sun* 'thirty' etc.: Gr. -*ovta*. *hun* 'ford, way': Lat. *pons* 'bridge', O.Bul. *paŕŕ* 'way'.

Beside *o* (*u*) appears also *a*, without the special conditions for this representation being ascertained. *ač-ē* 'eyes': Gr. ὄσσε, Lat. *oculu-s*. *at-ea-m* 'I hate': Lat. *od-iu-m*.¹⁾

Indg. tauto-syllabic *oi* appears as *ai* in *ait-nu-m* 'I swell' *ait* (gen. *aiti*) 'cheek': Gr. οἰδάω οἰδέω 'I swell' *oĩdos* 'tumour', OHG. *eiz* 'ulcer'. By the side of this perhaps also as *ē*, which became *i* in non-final syllables, e. g. *mēg*, Gen. *migi* 'mist': Skr. *mēghá*- 'cloud'; *gini* 'wine': Gr. οἶνο-ς. It is not certain

1) Cp. now also Bartholomae Ar. Forsch. II 46.

whether *ē*, *i* in these words (cp. Hübschmann Armen. Stud. I p. 60) do not rather represent Indg. *eī* (cp. § 63).

Indg. tautosyllabic *ou* seems to occur as *oi* (thence *u* in non-final syllables) in *poit*, gen. *putoy*, 'σπουδή', *putam* 'σπονδάζω'. *oi* (*u*), however, can here and in other cases (Hübschmann Stud. I p. 62) be also regarded as representing Indg. *eu* (cp. § 63).

§ 80. Greek. Pf. *κέκλοφε* (instead of **κεκλοπε* after the analogy of *τέτροφε* and others): Goth. *hlaf*, cpf. **qe-qlóp-e* 'has stolen' fr. rt. *glep*-. Causat. *σοβέω* 'I drive away, scare': Skr. *tyājáyami* 'I bid one leave a thing', to *σέβομαι* 'I step back before something, am afraid, reverence'; Skr. *tyájami* 'betake myself away, stand back from a thing'. *λόχο-ς* 'bed, couch, ambush' *ἄ-λοχος* (fr. **ά-λοχο-ς*, § 564) 'bed-mate, wife': O.Bulg. *sq-logŭ* 'consors tori', fr. rt. *legħ*-. *δύς-πορο-ς* 'hard to pass': Skr. *duṣ-pāra*-, fr. rt. *per*-. *όλκό-ς* *όλκή* 'a dragging, furrow': Lith. *ūž-valka-s* 'over-coat, bed-cover', cpf. **uolgo-s* fr. rt. **uelq*- (cp. § 164 rem.). *δóμο-ς* 'house': Lat. *domu-s* O.Bulg. *domŭ* 'house'. *ά-οσσητήρ* 'helper' (§ 489): Lat. *sociu-s*. *ρόφά* *ρόή* 'stream', prim. f. **srou-a* fr. rt. *srex*-. *φθόή* 'consumption, decline' fr. **φθοχ-ā* fr. rt. *φθει*- in *φθί-σι-ς*. *όστέο-ν* 'bone': Lat. *os ossis*, Skr. *ásthi* (neut.) 'bone'. *όζω* 'I smell': Lat. *odor*. 2. du. impf. act. *έφερε-τον*: Skr. *ábhara-tam*, cpf. **é-bhere-tom*; 3. sg. impf. mid. *έφερε-το*: Skr. *ábhara-ta*, cpf. **é-bhere-to*, fr. rt. *bher*- 'bear'.

In Aeolic (Lesb., Thessal., Bæot.), Arcadian-Cyprian and Pamphylian *o* either became fully *u* or a sound approaching it (written *υ*), e. g. Thess. *άπυ* = *άπο*, Arcad. *άλλυ* = *άλλο*, Pamph. gen. *Κουρασίωv-υς* = *-ων-ος*. *o* certainly did not undergo this sound-change in every sound-combination and word-position; the limits and conditions, however, under which it took place, cannot be precisely determined owing to the scarcity of monuments.

Tautosyllabic *oi*. *πέποιθε* 'trusts': Goth. *báiþ* 'has waited for' (pres. *beida*), cpf. **bhe-bhóidh-e*. *οινό-ς* *οινή*: Lat. *oino-s ūnu-s*, O.Ir. *oen*, Goth. *áins*, Pruss. acc. *aina-n*, cpf. **oi-no-s* 'unus'. Loc. pl. *λύκοι-σι*: O.Bulg. *vlŭcě-chŭ*, Skr. *vṛkē-ṣu*, Indg. **uḷqoi-su*, stem **uḷqo*- 'wolf'.

o became *oe* in Bœotian, e. g. Ἀριστί-θοινο-ς inscript. of Tanagra (to *θείνη* 'feast' fr. rt. *dheĩ-*, Skr. *dhi-nō-mi* 'I satiate'), thence *ū* in the third century B. C., Θύναιοχο-ς, *Fyniā* (= *Fouliā*) and in the youngest Bœot. inscriptions beside *ū* also *ei*, that is, *i* or a sound closely approaching it, e. g. pl. ποῖόμενι = ποιούμενοι (cp. *τοί*: Skr. *tē*, Goth. *þái*). The change to *ū* took place in the other dialects (but not before the second century A. D.) and led to the Mid. and Mod. Gr. *i*.

Tautosyllabic *ou*. Hom. ἐλήλουθε 'has come' beside fut. ἐλεύσομαι. σπονδή 'zeal' beside pres. σπένδω. This diphthong became *ū* in Ionic and Attic in the fifth century B. C., but the spelling *ou* was retained. The diphthongic pronunciation may have remained longer in the other dialects. The representation in Cypr. is noteworthy: *o-vo* = οὐ, *a-ro-u-ra-i* = ἀρούραι.

§ 81. Italic. In the prim. Italic period *o* appears, with the exception of certain reductions in final syllables, to have been still unchanged in every sound-combination.

Lat. *totondit* 'has shorn' pf. to **tendō* = Gr. τίνδω τένω 'I gnaw at'. Causat. *noceō* 'I injure' (Skr. *nāśáyāmi* 'I make to disappear, destroy') to *nex necis*. *procu-s* 'wooler' to *precor*. Abl. *pondō* 'by weight' to *pendo*.

The *o* in unaccented syllables, which in older Latin still remains unchanged (e. g. *fīlio-s*, *dōno-m*, *opos*), became *u*, except before *r* = *s* (§ 569) and after *u* and *u*: *fīliu-s*, *dōnu-m*, *opus*, *vehunt*, *tetuli*, *con-tuli*, *sēdulō* (fr. *sē-dolō*). *o* was retained before *r* = *s*, e. g. in *temporis* fr. **tempoz-is* (a new form, in place of **tempez-is*, after the analogy of the Nom. acc. *tempo-s*), and after *u*, *u*, e. g. in *vīvos*, *vīvom*, *vīvont*, *equos*, *sequontur*, *mortuos*. The forms *vīvus*, *vīvum*, *vīvunt*, *mortuus* etc. (like *locus*, *legunt*), do not occur before the eighth century A. U. C., by which process *qu* (*ku*), *gu* (*gu*) passed into *c*, *g*.: *ecus* (gen. *equī*), *relincunt* (1. pl. *relinquimus*), *ungunt* (1. pl. *unguimus*) etc. (cp. Bersu Die Gutturalen und ihre Verbindung mit *v* im Lat., Berlin 1885, p. 53 ff.).

u fr. *o* occurs also in chief accented syllables, especially before nasals. *uncu-s*: Gr. ὄγκο-ς 'bow, hook'. *uncia* older *oncia* 'ounce'

to Gr. ὄγκος 'mass, bulk'. *hunc* fr. older *honc*. *unguis* to Gr. ὄνυξ. *umbō* 'boss of a shield' and *umbil-icu-s*, to Gr. ὀμφαλό-ς. In like manner *ursu-s* fr. **or(c)so-s*, *mulctu-s* fr. **molcto-s*, whose *or*, *ol* arose from Indg. *r*, *l*, § 295.

Final *-o*, like *-a* (§ 97), became *e*. Imper. *sequere*: Gr. ἐπε(σ)ο. Nom. *olle* (*ille* seems to be a new form after *iste*, *ipse*) fr. **ol-se* (§ 571), *iste* a new form for **is-se* (with *t* transferred from such forms as *istum istō*): the second component of these compounds is identical with Skr. *sá*, Gr. *ó* (Indg. **so*), cp. the coincidence.

Also in other cases *o* in unaccented syllables seems occasionally to have become *e*, *i*, that is, an irrational vowel, which appears after *i* and in closed syllables as *e*, and in other cases as *i*. *īlicō* fr. **in slocō*. *hospes hospitis* fr. **hos(ti)-pit-* (§ 633) beside *potis sum* (*com-pos -potis*). *anni-culus* to *anno-*, *auri-fex* to *auro-*, *socie-tās* to *socio-*, *novi-tās* (Gr. νεό-της) to *novo-*. *legi-mus* = Gr. λέγο-μεν. It, of course, still remains to be determined in what relations this change stands to the *u* in *filius* etc. and for what reasons here the one, there the other course of variation was introduced; cp. § 680. The question might also be raised as to whether Indg. *e* does not occur in *anni-culus*, *auri-fex*, *socie-tās*, *novi-tās* and in *legi-mus*: *anni-culus* etc. like οἰκέ-της, *legi-mus*, new formation after *legi-tis* = Gr. λέγε-τε.

Rem. 1. The genitive suffix *-es -is* (*salūt-es salūt-is*) has not arisen from *-os -us* (*senātu-os, homin-us*). *-es* and *-os* were both old inherited forms (see p. 67).

Thurneysen Kuhn's Ztschr. XXVIII p. 154 ff. assumes the transition of *ov* to *av*, e. g. *caveō*: Gr. κο(φ)ίω 'I mark'; *cavo-s*: Gr. κοίαι 'excavations'; *lavō*: Gr. λέε 'he washed'. Cp. however, Hübschmann Das Idg. Vocabl. p. 190.

The fluctuation of the orthography between *o* and *u* in the Umbrian-Samnitic dialects points to a close pronunciation of the *o*. Since the Umbr. *u* was the sign both for *o* and *u* (§ 23), the tables written in the national alphabet contribute nothing towards determining the quality of the *o*-sound; the tables written

in Lat. have both *o* and *u*. In Oscan *ú u*, *o u*. Umbr. *purka porca* 'porcas': Lat. *porcu-s*, Gr. *πόρκο-ς*, O.Ir. *orc*, OHG. *farh farah* (§ 277), Lith. *pařsza-s*, cpf. **porko-s* 'pig, sucking-pig'. Umbr. *uvef ovi* acc. 'oves': Lat. *ovi-s*, Gr. *ὄι-ς*, Goth. *avēpi* neut. 'flock of sheep', Lith. *avi-s*, O.Bulg. *ovŭ-ca*, cpf. **oŭi-s* 'sheep'. Umbr. *curnac-o* 'cornicem': Lat. *cornīx* Gr. *κορνίχη* 'crow', prim. st. **kor-en- *kor-n-*. Osc. *pútiad putiīad* 'possit' *putiāns* 'possint': Lat. *potis*, Gr. *πόσι-ς*. Umbr. *puř-e* 'quod', Osc. *púd pod* 'quod': Lat. Faliscan *quo-d*, Gr. *πο-*, Goth. *hva-*, Indg. **go-*. Nominal suffix *-o-* in Umbr. *puplu-m poplom* 'populum', Osc. *húrtú-m* 'hortum, templum', *dolo-m dolum* 'dolum', Volsc. *piho-m* 'pium': Lat. *dolo-m dolum*, Falisc. *vootu-m* 'votum'.

The diphthongs *oĭ* and *ou*.

Tautosyllabic *oĭ* in chief accented stem syllables became *oe*, *ū* in Lat. *oino-s oeno-s ūno-s*: Gr. *οἰνό-ς*, cpf. **oĭ-no-s* 'one'. *moini-cipio-m moenia mūnia*: Goth. *ga-mains* 'common', Lith. *maĩna-s* 'exchange', Gr. Sicel. *μοῖ-το-ς* 'requital'.

oe, *ī* arose in final syllables. Nom. pl. *poploe* (Saliar hymn), *ploirumē* (C. I. L. I 32), *plūrimī*: Gr. *τοί, λύκοι*, Goth. *þái*, Indg. *-oĭ*, **toĭ* fr. stem *to-* 'the, this'. Cp. instr. pl. **-ois, -oes (oloes) -īs (equīs)* fr. **-ōis* (§ 612). In like manner also *ī* in the monosyllabic nom. pl. *hī quī*, instr. pl. *hīs quīs*. *quī* and *quīs* may have originated from an unaccented position (*stī qui, āli-quī* etc.) and *hī* and *hīs* may be due partly to assimilation to *quī, quīs*, and partly to assimilation to the polysyllabic forms *illī, illīs*. Cp. also the nom. sg. *quī* fr. O.Lat. *quoi* (*goi* = *quoi* on the Dvenos-inscrp., cp. Bersu Die Gutturalen, Berlin 1885, p. 40) i. e. **quo* + particle *ī* (*ī*).

Rem. 2. *oĭ* is also said to have become *ī* in chief accented syllables, when preceded by *v* or *l*: *vidit oīde*, *vīnu-m oīnos*, *vīcu-s oīno-ς*, *liquit lī-loine*, *liber loebertatem* and others. This sound-change cannot, however, be accepted as definitely proved, since almost all examples under this category can also be easily explained otherwise. See Osthoff Morph. Unt. IV p. 129, Zur Gesch. des Perf. p. 191, Danielsson in Pauli's Altit. Stud. 4. 156 f.

Rem. 3. Why *ferēs*, which I (against Thurneysen Bezenberger's Beitr. VIII 269) consider equal to Gr. *φέροις* Goth. *baīrdis*, with *ē* and not *ī*? It is possible that *ē* arose regularly in the 1. sg. (O.Lat. *ferem*)

and 3. pl., and then from these two forms was extended to the other persons. I leave it undecided as to whether *-em*, *-ent* were the continuation of prim. Lat. **-oī-m*, **oī-nt* (cp. Gr. 1. sg. Att. *τεῖπον*, 3. pl. Delph. *παρ-έχουν*, Goth. 3. pl. *baīrdin-a*), or that of Indg. **-oīm*, **-oī-nt*, which, according to Lat. sound-laws (§ 237), must, first of all, have become **-o(i)em*, **-o(i)ent*. It is also conceivable that *capiēs* and *audiēs* are regularly formed, but that **feris* arose with the same contrast as that in which *socie-tās* and *novi-tās* stand to each other. In that case **feris* has been transformed to *ferēs* after the analogy of *capiēs*; but then *mediī*, *mediūs* (*μῆσοι μῆσοις*) must also be regarded as modifications of **mediē*, **mediēs* after *novī*, *novīs*.

In Umbrian *u* = *oī* whereas the Oscan-Sabell. monuments still present the diphthong, as to which it is certainly questionable, whether the written diphthong still existed everywhere as such in the language itself. Umbr. *unu* 'unum', Osc. *ún[itu]* 'unita'. Osc. *múfnkad* abl. 'communi': O.Lat. *comoinis*. Umbr. *kuraia* 'curet', Pelignian *coisatens* 'curaverunt': Lat. *coirō coerō cūro* (the forms *coraveront* C. I. L. I 73 and *couraverunt* l. c. 1419 are very singular; in the latter *ū* was certainly meant), prim. Ital. stem. fem. **koisā-*. Cp. also the Osc. instr. pl. *Núvlanúis* 'Nolanis' *zicolois* 'diebus', Pelignian *suois* 'suis', Umbr. *veskles -is* 'vasculis': Lat. *oloes illīs*; Umbr., like Lat., indicates here a special manner of treating *oī* in final syllables.

Tautosyllabic Indg. *ou*, fell together with Indg. *eu* (§ 65) and is still only traceable in Osc. as diphthong: Gen. sg. *castrovs* fr. stem *castru-* 'fundus' (§ 77). In Umbr. *ō*: gen. *trifor* 'tribus'; *rofu* 'rubos': Goth. *ráuþs*, cpf. **rouþho-s*. *ū* arose in Lat., e. g. gen. sg. *fructūs*; pf. *fūdīt*: cp. Goth. *gáut* 'poured out' (pres. *giutan* 'to pour out'). By side of it also *ō*: *rōbu-s* = Umbr. *rōfo-*, gen. *domōs* = *domūs* (Augustus wrote *domos*); cp. also the inscrip. forms with (long) *o*, *losna* (= *lūna* fr. **louc-snā*, § 570), *poplicod* (beside *pouublicom pūblicus*), *nondinum* (beside *noundinum nūndinum*). It remains doubtful how this duality *ū* and *ō* in Lat. is to be estimated. It was hardly a mere graphic duality.

Rem. 4. In a number of Ital. words containing *ou*, it cannot be decided, whether this diphthong represents prim. Indg. *eu* (§ 65) or *ou*, e. g. in those containing *louk-* as Osc. gen. *Lúvkanateis* 'Lucanatis' *Luvkis Luvikis* 'Lucius', Lat. *Loucina Luucius* etc., fr. rt. *leuk-* 'illumine' (Gr. *λευκός* *λοῦσαν*).

§ 82. Old Irish. In chief accented syllables *o*. *ocht* 'eight' : Gr. ὀκτώ. *roth* 'wheel' : Lat. *rota* 'wheel', OHG. *rad* 'wheel', Lith. *rāta-s* 'wheel'. *orc* 'pig' : Gr. νόρξος. *gorim* 'I heat, warm, burn' : O.Bulg. *gorēti* 'to burn', Lith. *gāra-s* 'steam', fr. rt. *gher-*. Prep. *co n-* 'with' : Lat. *cum*, Umbr. Osc. *com*. It passes into *u* with the palatalisation of the following consonant : *suide* 'seat' fr. **sodio-* = Lat. *soliu-m* (*l* = *d*, § 369), rt. *sed-* 'sit' (§ 640). Cp. also *mug* 'slave' fr. **mogu-s* (Goth. *magu-s* 'boy, servant'), *ru-* beside *ro-* (Indg. **pro* 'before, in front', p. 67), *cum-* beside *com-* *con-* (*co n-*, see above).

In secondary accented syllables *o*, so far as it did not entirely disappear (§§ 634. 657), became an irrational vowel, whose sound quality mostly regulated itself according to the timbre of the following consonant.

a. 1. pl. *as-béram* 'dicimus', 3. pl. *as-bérat* : Gr. φέρομεν, (Doric) φέροντι, ἔφερον, Goth. *baīram*, *baīrand*; -*berat* may be middle = Gr. φέροντο, or it is, as Thurneysen thinks, to be regarded as the regular continuation of **beront*, Indg. **bheront* (*t* in the combination *nt* had not the same development as *t* in other cases in Irish, and we have no evidence that original *t* in the final combination -*nt* was dropped in Irish).

i. Gen. *blid* 'victus' fr. **bi(u)otī*, to nom. *blad* fr. **bi(u)oto-m* : Gr. βίωτο-s Lith. *gyvatà* O.Bulg. *životū* 'life'.

u. Dat. *blud* (to the above named *blad*) fr. **bi(u)otō*.

In forms like *cómarbus* 'cohereditas' beside *órpe* 'hereditas' (Goth. *arbi* neut. 'inheritance') *or* had first of all become *r*. S. § 634.

In the 3. sg. *ad-cón-dairc* (Gr. δέδορκε), *réraig* 'dixerit' (O.Icel. *rak*, rt. *reġ-*) *a* only indicates the timbre of the preceding consonant. See § 640.

Cp. Gall. *o* in *tarvo-s* 'bull' : Gr. ταῦρο-s; νεμῆρο-ν neut. 'sanctuary' (O.Ir. *nemed n-*) : cp. Gr. ζυγό-ν; *epo-* 'horse' in *Epo-rēdia* = Lat. *equo-*.

In chief accented syllables Indg. *oi* became *oe* (written *oe* and *oi*). *oen* 'unus' : Lat. *oino-s* *ūnus*. *cloen* 'oblique, unjust, bad' : Goth. *hláins* 'hill', fr. rt. *klei-* 'lean, incline'. Before pala-

talised consonants *oġ* for *oġ*, e. g. *cloine* 'obliqueness, injustice'. Old *oġ* may, therefore, have been retained here.

Rem. Beside *oe*, *oi* was also written *ae*, *ai*, e. g. *aen* 'unus' beside *oen*; *clain* nom. pl. of *cloen*; *maini* 'dona, pretiosa' (to Lat. *moenia, mūnia*).

In final syllables *oġ* became *ī*, which disappeared and only left its traces in the palatalisation of the preceding consonant. Nom. pl. *eich* 'equi' fr. **ekyī*, cp. Gr. *ἵπποι*, Lat. *poploe populi* (§ 657, 4). In Gall. inscrip. the nom. pl. still ends in *-oi*: *Tanotaliknoi*.

Indg. *ou* fell together with *eu* (§ 66). It became *ō*, whence later *ua*. *ruad* 'red', Cymr. *rhudd* Corn. *rudh* Bret. *ruz*: Goth. *ráuþs* (stem *ráuda-*), cpf. **rouðho-s*; cp. Gall. *Roudu-s Ande-roudu-s*.

§ 83. Germanic. Pf. 3. sg. Goth. *varþ* OHG. *ward* O.Icel. *varð* 'he took a direction, became': Skr. *vavárta*, cpf. **ue-uórt-e*, fr. rt. *uert-* 'turn'. Causat. Got. *us-vakjan* 'to awake', OHG. *wecchan*: Skr. *vājáyati* 'he urges on, drives on', cpf. 1. sg. **uoġéið*, fr. rt. *ueg-* 'be active, strong'. Causat. Goth. *fra-ward-jan* OHG. *far-warttan* 'to let perish, destroy': Skr. *vartáyati* 'lets something take a turning or course', cpf. 1. sg. **uortéið*, fr. rt. *uert-*. OHG. OS. O.Icel. *band* (neut.) 'band, cord', prim. f. **bhondho-m*, fr. rt. *bhendh-* 'bind', cp. Skr. 3. sg. pf. *babándha*. Goth. *gasts* OHG. OS. *gast*, O.Icel. *gestr* 'guest' Norse Runes *gastiᵣ*: Lat. *hosti-s* 'stranger, enemy', O.Bulg. *gostŭ* 'guest', cpf. **ghosti-s*. Goth. *asts* OHG. *ast* (masc.) 'branch': Gr. *ᾠζος*, cpf. **ozdo-s*. Goth. *þat-a*, OHG. *daz*, O.Icel. *þat* 'that, the': Gr. *ró*, cpf. **tó-d*.

Rem. 1. Indg. *o* fell indiscriminately together with Indg. *a* (§ 99) and Indg. *ə* (§§ 109, 110) already in prim. Germ. At this period *a* was used for the three vowels in chief accented syllables, in other syllables frequently or always *o*. The latter quality was still retained in Westgerm. in historical times: e. g. in the dat. pl. OHG. *worto-m wort-um* OS. *wordo-n wordu-n*, Afs. *wordu-m* fr. stem orig. **uṛdho-* or **uṛ-to-* 'word' (but Goth. *vaurda-m*). See Paul's article in Paul-Braune's Beitr. IV p. 358 ff. and VI p. 186 ff. Since it has not been definitely settled for many syllables, whether *o* or *a* was spoken in prim. Germ., we write the prim. Germ. forms throughout with *a* according to the Goth. notation, an inexactness, which is of little importance for this comparative grammar.

Indg. tautosyllabic *oi*. 3. sg. Goth. *váiþ* OHG. *weiz* OS. *wēt* Ags. *wāt* O.Icel. *veit* 'knows': Gr. *οἶδε*. Goth. *láiþv* OHG. *lēh* Ags. *lah* 'he lent': Gr. *λέλοιπε*. Causat. Goth. *láiþjan* (for regular **láiþjan*, § 581) OHG. *lërran lëran*, OS. *lërian* 'to teach', beside Goth. *leisan* 'to learn', rt. *leiþs*. Goth. *díns* OHG. *ein* OS. *ēn* Ags. *an* O.Icel. *einn* 'one': Lat. *oīno-s ūnu-s*. 2. sg. opt. Goth. *bairáis*: Gr. *πέποις*. Gen. sg. Goth. *anstáis* (fr. *ansti*- 'favour'): cp. Lith. *akės* (fr. *aki*- 'eye'), Indg. ending *-oīs*.

Indg. tautosyllabic *ou*. Pf. 3. sg. Goth. *báuþ* OHG. *bōt* OS. *bōd* Ags. *beád* O.Icel. *bauð* 'bade': Skr. *bubōdha*, Indg. **bhebhōydh-e*. Goth. *ráuþs* (st. *ráuda-*) OHG. *rōt* OS. *rōd* Ags. *reád* O.Icel. *rauðr* 'red': Gall. *Roudu-s* O.Ir. *ruad* 'red', cpf. **roydho-s*. Gen. sg. Goth. *sunáus* (fr. *sunu*- 'son'): Lith. *sūnaūs* (fr. *sūnu*- 'son'), Indg. ending *-oūs*.

In the eighth century *a* became *e* in OHG., caused by a consonantal or sonantal *i* in the following syllable. *nerian* i. e. *nerian* = Goth. *nasjan* (for regular **nazjan*, § 581) 'to rescue', causat. to *ga-nesan* = Goth. *ga-nisan* 'to become healed', fr. rt. *nes-*, Gr. *νέομαι*. Nom. pl. *gesti* (sg. *gast*) 'guests' = Goth. *gasteis* (sg. *gasts*, st. *gasti-*). This umlaut, however, was hindered by *r, l, h* + Consonant (see Braune in Paul-Braune's Beitr. IV p. 540 ff.), e. g. *far-warttan* 'destroy' (p. 77) dat. *nahti-m* 'noctibus' (st. *nahti* = Lat. *nocti*- Lith. *nakti-*). But the *e*, which arose from this *i*-umlaut, differed from the *e* which arose out of prim. Germ. *i, e* (§§ 35, 67) not only in OHG. but also in MHG. and even in NHG.: the latter, also written *ē* by way of distinction, was open, the former close (J. Franck Zeitschr. f. deutsch. Altert. XXV 218 f., W. Braune Lit. Centralbl. 1884. column 124 f., Luick Paul-Braune's Beitr. XI 492 f.).

Prim. Germ. *aī* became *ei* (*weiz, ein*) except before *r, h, w* where it became *ē*: *lërran, lēh*.

Prim. Germ. *au* remained partly as diphthong, *au* and later *ou*, e. g. pf. *scaub scoub* = Goth. *skáuf* 'pushed' (pres. Goth. *skiuba*), *boug* = Goth. *báug* 'bent' (pres. Goth. *biuga*), and partly became *ō* viz. before dental consonants and *r, l, h* (= Goth. *h*), e. g. *bōt, rōt*, pf. *drōþ* = Goth. *þráut* 'troubled' (pres. Goth.

priuta), *trōran* 'to make to drop, spill' = Goth. *dráusjan* (for regular **drauzjan*, § 581) 'make to fall, fell, throw' (causat. to Goth. *driusan* 'to fall'), pf. *zōh* 'drew' = Goth. *táuh* 'led' (pres. Goth. *tiuha*).

Quite independent of this change of *a_i* and *au* to *ē* and *ō*, there was an older (prim. Westgerm.) reduction of the same diphthongs to *ē* and *ō*, which took place in unaccented syllables. Final *ē* and *ō* were shortened according to § 661, 6. OHG. *blinte* nom. pl. masc. 'blind', *blintēm* dat. (instr.) pl. 'blind' = Goth. *blindái*, *blindáim*, prim. Germ. **blindai*, **blina_i-mi*. *berēs* 2. sg. opt. = Goth. *bairáis* (p. 78). *tage* dat. loc. sg. (to *tag* 'day') = prim. Germ. **dagai*, cp. Gr. loc. *oĩxoi* and dat. *oĩxw* (§ 659, 2. 3). *sunō* gen. sg. (to *sunu* 'son') = Goth. *sunáus* (p. 78).

Here belongs also OHG. *dē* 'the', *dēm* 'the' = Goth. *pái*, *páim*, since the pronoun regularly suffered the change in those cases, where it was unaccented.

The forms *dia die* = *dē* and *deam diem* = *dēm* show that this *ē* = prim. Germ. *a_i* was equivalent to the *ē* discussed in § 75 rem. 2.

Rem. 2. These OHG. (Westgerm.) sound-laws in like manner held good for Germ. *a* = Indg. *a* and Indg. *ə*. See § 99 and § 109.

§ 84. Baltic-Slavonic. Indg. *o* was *o* in the Baltic-Slav. unitary period, and generally remained *o* in Slav., whilst it became *a* in Baltic.

Lith. *tāka-s* 'path', O.Bulg. *tokū* 'course', to Lith. *tekū* O.Bulg. *tekā* 'I run'. O.Bulg. *raz-dorū* 'rent, gap': Gr. *δορά* 'skin, hide', fr. rt. *der-* 'tear, flay'. O.Bulg. causat. *ložiti* 'ponere': Goth. *lagjan* 'to lay', fr. rt. *leg-* 'lay, make a bed'; *topiti* 'to heat': Skr. *tapáyami* 'I heat', fr. rt. *tep-*. Lith. *naktī-s*, O.Bulg. *noštī* 'night': Lat. *nox noctis*, Goth. *nahts* 'night'. Lith. *avi-s* O.Bulg. *ovī-ca* 'sheep': Lat. *ovi-s*. Nominal suffix *-o-*: Lith. nom. sg. *vilkā-s* 'wolf', dat. pl. *vilká-ms* O.Bulg. *vľūko-mŭ*, prim. Balt-Slav. st. **vľlko-* (§ 302) 'wolf': Gr. *λύκο-s*. The thematic vowel *-o-*: Lith. 1. pl. pres. *nēsza-me* 'we carry', O.Bulg. 1. pl. aor. *neso-mŭ* 'we carried': Gr. *φέρο-μεν*.

om, *on* before consonants (except *i*) generally appear as *a* in Slavonic. *zābu* 'tooth: Gr. *γόμενο-ς* 'plug, bolt', rt. *gembh-*. *blādū* 'error' beside *blēda* 'erro', rt. *bhlendh-*. *o* became *u* (*ū*) in final syllables before final nasal and before *-ns*. Thus Indg. **-o-m* (in the acc. sg. of *-o*-stems and in the 1. sg. pret.) became **-u-n* (§ 217) *-ū* (§ 219), as *vlūkū* 'lupum', *nesū* 'I carried'; Indg. **-o-ns* in the acc. pl. (cp. Gr. Cret. *νόμους*) became **-uns* whence further the *-y* of historical times, as *vlūky* 'lupos' (§ 219). Final *-ū* = Indg. **-om* was lengthened to *y* before *j*, e. g. *dobrū-jī* and *dobry-jī* 'the good (man)' (*dobrū* is the accusative form, used as nom., see the accidentence), cp. § 36 p. 37.

In the same language *io* became *ie*. Nom. acc. sg. neut. *je* 'it': Gr. *ὅ* 'quod', Skr. *yá-d* 'quod', cpf. **io-d*. Dat. pl. *konje-mū* fr. st. *konje-* fr. **konjo-* 'horse', *māže-mū* fr. st. *māže-* fr. **māg-je-* (§ 147), **māg-jo-* 'man', cp. dat. pl. *vlūko-mū*.

In like manner *i* influenced a following *a* in Lithuanian: *a*, in this combination and after consonants which have been palatalised by *i*, is pronounced as an open *e* in many dialects, e. g. *kraūjes* 'blood', pl. *kraujei* = *kraūjas*, *kraujaĩ*; *svėczes* 'guest', pl. *sveczei* = *svėczias*, *svecziaĩ*; dat. sg. *jėm* 'him', instr. pl. *jėis* = *jám*, *jaĩs*.

Rem. 1. Lith. *ji-s* 'he' is not equal to Gr. *ὅ-ς* Skr. *yá-s*, but stands to these in the same relation as Gr. *τι-ς*, Lat. *qui-s* stand to Skr. *ká-s* Goth. *hva-s*. Also *szi-s* 'this' (beside gen. *szið*) is not fr. **kjo-s*, but like O.Bulg. *sī* 'this' = orig. **kī-s* (O.Bulg. gen. *sego*, dat. *semu* etc. for regular **šego*, **šemu* etc. fr. **sīego* etc. after the analogy of the nom. *sī* and acc. *sī*). After the same manner as *jis* stands to gen. *jð*, dat. *jém* etc. are also to be explained nominatives sg. like *mēdis* (gen. *mēdžio*) 'tree', whose *-i-* instead of *-ji-* is on the same level as the *-i-* in *gerds-is* (definite form to *gēra-s* 'good'), and those like *gaidys* (Gen. *gaidžio* 'cock', whose *y* arose from *iji* (§ 147). Indg. *i* was likewise contained in the final syllables of O.Bulg. nom. and Acc. *konjī* 'horse' (st. *konje-*), Goth. nom. as *harji-s* 'army, host' (st. *harja-*) and *hairdeis* fr. **χīrđīi-s* 'shepherd' (st. prim. Germ. **χīrđīja-*), O.Lat. *Cornēlis Cornēlim*, *alis alim* beside *Cornēlius*, *alius* Osc. *Kīīpīis* 'Cipius', Umbr. *Trutitis* 'Truttidius'. To these may possibly be added the Greek proper names in *-ις* beside *-ιος*, *-ιας*, as *Δῆμις Δεινς* etc. Cp. §§ 120. 143. 219 rem. 1. 660 rem. 3 and the accidentence.

Indg. tautosyllabic *oi* appears in Lith. as *ē* and *ai*, in Slav. as *ě*. Lith. *snėga-s* 'snow' (beside *snaigalà*¹) 'snow flake' *snai-gyti* 'to snow a little') Pruss. *snaygis* O.Bulg. *sněgŭ* 'snow': Goth. *snāivs* 'snow', cpf. **snoigho-s*, fr. rt. *sneigh-*. Lith. *āt-lėka-s* and *āt-laika-s* 'remnant, rest' *laikyti* 'to hold', O.Bulg. *otŭ-lěkŭ* 'remnant, rest': Gr. *λοιπό-ς*, fr. rt. *leiq-*. Lith. *laipinti* 'to let rise', O.Bulg. *pri-lěpŭ* 'salve, grease': Gr. *ἀλοιφή* 'salve', fr. rt. *leip-stick, glue*. Lith. *maiszala-s* 'medley, compound' *maiszyti* 'to mix', Pruss. *maysota-n* 'mingled', O.Bulg. *pri-měsŭ* 'admixtio' *měsiti* 'to mix', from rt. *meik-* (Gr. *μεικτός*), cp. § 414 rem. Lith. 3. sg. opt. *te-sukė* (*sukù* 'I turn'), O.Bulg. 2. pl. opt. *berēte* (*bera* 'fero'): Gr. *φέρου, φέροντε*. Lith. *kėma-s* 'farm, village' *kaimyna-s* 'neighbour': Goth. *háims* 'village', cpf. **goi-mo-s* (cp. O.Bulg. *po-koi* 'rest, repose', fr. rt. *gei-*. Pruss. *waisei waisse* 'thou knowest', O.Bulg. *věmŭ* fr. **věd-mŭ* and *věd-ě* 'I know': Gr. *οἶδε*, Indg. pf. stem *uoid-*. Lith. *pėmũ* 'shepherd boy': Gr. *ποιμήν*. Lith. *staigà* 'sudden' *staigyti-s* 'hasten': Gr. *στοῖχο-ς* 'row', fr. rt. *steigh-* 'rise'.

Rem. 2. It is undetermined after what law *ē* and *ai* interchange in Lith. I conjecture that originally *ai* regularly remained only when the following consonants had a palatal timbre, which had been caused by an *é*- or *i*-vowel in the following syllable; in other cases *ai* became *ae*, then open *ē*, and later *ē*. Cp. e. g. *kaimynas* with *kėma-s*, *pá-saiti-s* (masc.) 'a binding thong' with *sėta-s* 'cord' (§ 100), and the numerous verbs in *-yti* as *laikyti* (*laikaũ, laikiaũ, laikysiu*). In this case *kaĩma-s* (another form of *kėma-s*) would be a new formation after *kaimynas*, and *laikaũ* after *laikiaũ* etc.; in the case of nouns like *āt-laika-s* 'remnant', *maĩna-s* 'exchange', the verbs in *-yti* and the like which exist side by side with them would come into consideration, etc. Only slurred ('geschliffen') *ai* (*aĩ*) seems to have undergone the change to *ē*, whereas *ái* (*dáikta-s* 'place, thing', *pa-láida-s* 'loose, slack') remained also before consonants having a labial timbre. Cp. *ē* and *ei* = Indg. *eĩ* § 68 rem. 2.

Slav. *ě* = Indg. *oi* and = Indg. *ai* (§ 100) are to be distinguished from *ě* = Indg. *ē* (§ 76) in historical times from the fact that before them *k*, *g*, *ch* do not appear changed into *č*, (*d*)*ž*, *š*, but into *c*, (*d*)*z*, *s*. Loc. pl. *vlŭcěchŭ* (*vlŭkŭ* 'wolf'), *bo(d)zěchŭ* (*bogu* 'god') with the Indg. ending **-oĩsu*, cp. Gr.

1) Kurschat in Lith.-Germ. Diot. accents it thus *snaigala*.

Brugmann, Elements.

λύκοι Skr. *vŕkěšu*. Instr. sg. *tacēmī*, instr. pl. *tacēmi*, dat. pl. *tacēmū* fr. *takū* 'talīs'. Opt. 2. pl. *řicēte* from *rekā* 'I say', cp. Gr. *φέροιτε*. Cp. §§ 461. 462. 463. 464. 588.

Final *ē* = Indg. *oi ai* mostly became *i*. Nom. pl. *ti* : Lith. *tē*, Gr. *τοί*, stem *to-* 'the'; in like manner *vlūci* : Gr. *λύκοι*. Gen. sg. *pāti* (*pāŕ* 'way') : Lith. *akės* (*akl-s* 'eye'), Goth. *anstáis* (*ansti-* 'favour'), Indg. **-ois*. Opt. 2. 3. sg. *beri* : Gr. *φέροις*, *φέροι*, cpf. **bhérois*, **bhéroit*. In the same way *-ē* = Indg. *-ē* became *-i* in the nom. *mati* 'mother' = Lith. *motė*, § 76.

Rem. 3. It remains undetermined why the loc. sg. had *-ē*, not *-i*, *vlūcē* (cp. Gr. *οἶκοι*, OHG. *tage* fr. **dazai* orig. **dhoghoi*). Cp. dat. loc. sg. *řacē*, nom. acc. du. *řacē* (§ 100) of *řaka* 'hand', and 1. sg. *véd-ē* 'I know' with the personal ending of the Skr. pf. mid. *tutud-ē* fr. *tud-* 'push'. Cp. Leskien Die Declin. im Slav.-Lit. u. Germ. p. 53, Mahlow Die langen Vocale *A E O* p. 103 f., and Osthoff Zur Gesch. des Perf. p. 194.

Initial *ē-* = Indg. *oi- ai-* likewise became *i-*. *inū* 'unus' : Lith. *v-ėna-s* (§ 666, 1), Pruss. *aina-n* acc., Lat. *oino-s ānu-s*. *iskati* 'to seek' : Lith. *j-ėszkóti* 'to seek', OHG. *eiscōn* 'to seek', a verb whose root is probably to be set down as *aīs-*, not *eīs-* (Osthoff Zur Gesch. d. Perf. p. 133); *iskati* certainly incurs the suspicion of being a Germanic borrowed word, see § 414 rem. Also here a difference is shown in comparison with Indg. *ē*. For this latter, when initial, became *ja-*, see §§ 76. 666, 1. Cp. further § 666 rem. 2.

Just as **io* became *ie* (see above), so also **ioi* became **iei* and further (by § 68) *ii*. Loc. pl. *jichū* (fr. st. *je-* 'he' fr. **io-*), *konjichū* (fr. st. *konje-* 'horse' fr. **konio-*) as opposed to *téchū*, *vlūcéchū*. Opt. 2. pl. *dějite* (*dějā* 'I put'), as opposed to *berēte*.

Indg. tautosyllabic *ou* as well as the *ou* (§ 68) which arose from *eu* in the Balt.-Slav. unitary period, appears in Lith. as *au*, and in Slav. as *u*. Gen. sg. Lith. *sūnaūs*, O.Bulg. *synu* : Goth. *sunáus*, Indg. **-ous*. Lith. *raudā* 'red colour', O.Bulg. *ruda* 'metal' : Goth. *ráuþs* 'red', rt. *reydh-*. Lith. *naudā* 'profit, wealth, property' : OHG. *nōz* O.Icel. *naut* (neut.) 'domesticated animal' to Goth. *niutan* 'to obtain, enjoy', rt. *neyd-*. Lith. *raudā* 'lamentation' : OHG. *rōz* (masc.) 'weeping' to *riozan* 'to weep', rt. *reyd-*

Indg. *ō*.

§ 85. Indg. *jōs-* 'gird' : Av. *yāsta-* 'girded', Gr. *ζωστός* 'girded' *ζωστήρ* 'girdle', Lith. *jū'sta* 'girdle' O.Bulg. *po-jasū* 'girdle'. Indg. *dō-* 'give' : Skr. fut. *dā-syāmi* 'dabo' *dā-na-m* 'donum', Arm. *tu-r* 'gift', Gr. *δώσω* *dō-πο-ν*, Lat. *dō-nu-m*, *dōs* *dōtis*, Lith. fut. *dū'-siu* 'dabo' inf. *dū'-ti* 'dare', O.Bulg. *da-ti* 'dare' *da-rū* 'donum'.

The abl. sg. of *-o*-stems in Indg. *-ōd* : Skr. *vṛkad* (*vṛka-s* 'wolf'), Gr. Locr. Cret. *ὠ* 'unde', Lat. *Gnaivōd* *Gnaeō*. 1. sg. of stems with thematic vowel in Indg. *-ō* : Av. *manya* 'I think' fr. prim. Ar. **manya* (§ 649, 1), Skr. *bhāra-mi* 'fero' (*-mi* was here newly added), Gr. *φέρω*, Lat. *ferō*, O.Ir. *as-biur* 'effero, dico' fr. prim. Kelt. **berō*, Goth. *batra* 'fero' fr. prim. Germ. **berō*, Lith. refl. *sukū'-s* 'I turn myself'. Nom. sg. in Indg. *-ō(r)* : Skr. *svāsa* 'soror', Gr. *δώτωρ* 'giver', Lat. *datōr* *dator*, O.Ir. *siur* Lith. *sesū* 'soror'.

The diphthongs *ōi* and *ōu* were probably not very often tautosyllabic in the Indg. prim. period. Dat. sg. of *-o*-stems in *-ōi* : Av. *haomāi* (*haoma-*, a plant), Gr. *ἱππῶ*, Osc. Abellanuf 'Abellano' Lat. *equō*, Lith. *vil̃kui* 'lupo'. Instr. pl. of the same stems in *-ōis* : Skr. *āśvāiṣ*, Gr. *ἱπποῖς* fr. **ἱππωῖς* (§ 611), Pelign. *cnatois* 'gnatis, filiis', Lat. *oloes illis* fr. prim. Ital. *-ōis* (§ 612), Lith. *vil̃kais* : Skr. *vṛkaiṣ* (§ 615). Nom. sg. Indg. **gōu-s* 'bullock' : Skr. *gāūṣ*, Gr. *βοῦς* (§ 611). Loc. sg. Indg. **sūnōu* (nom. **sūnū-s* 'son') : Skr. *sūndū*, O.Bulg. *synu*, Umbr. *manuv-e* 'in manu' (*v* was a glide as in *tuva* 'duo' and others, § 169), probably also Goth. *sunáu*, Lat. (dat.) *ūsū*. Indg. **oktōu* 'eight' (beside **oktō*) : Skr. *aṣṭāu*, Goth. *ahtáu*; **dyōu* 'two' (beside **dyō*) : Skr. *dvaū*, O.Ir. *dau* *dō*, older *dāu* (§ 645 final 1).

§ 86. Aryan. Skr. *asú-ṣ* Av. *asu-š* 'quick' : Gr. *ῥάπιδος*, Lat. *oc-ior*. Skr. *dāda-ti* Av. *daḍāiti* 'dat' : Gr. *δίδω-σι*. Nom. acc. du. in **-ō* (cp. § 645 final 1) : Vedic *hāsta* Av. *Gāp*. *zasta* O.Pers. *dasta* 'both hands' : Gr. *ἱππῶ*, Lat. *ambō*. Imper. in **-tōd* : Skr. vedic *bhāratād* : Gr. *γεπέτω*, Lat. *estōd* *estō*.

Concerning Av. *ē*, *ō*, *ā* = prim. Iran. prim. Ar. *a* fr. Indg. *ō* see § 102.

§ 87. Armenian. The regular representation seems to have been *u*. *e-tu* 'I gave': Skr. *ádām. tur* 'gift': Gr. *δῶρο-ν*, rt. *dō-*. *hum* 'raw': Gr. *ὠμό-ς* Skr. *amā-s* 'raw'; the initial *h-* has no etymological value. *šun* 'dog' fr. Indg. **kūōn*, Lith. *szun* (§ 92 rem.).

§ 88. Greek. *γνω-* 'perceive, know' *ἔγνω-ν γνω-τό-ς γνω-μα*: Skr. *jñā-* 'perceive, know' fut. 3. sg. *jñā-syāti* partic. *jñā-tā-s*, Lat. *gnō-scō nō-tu-s*, OHG. *ein-chnuadil* 'insignia, egregius' *be-cnuodelen* 'to give a countersign', O.Bulg. inf. *zna-ti* 'know', *zna-mę* 'sign'. Aeol. *πῶ-νω* 'I drink' pf. *πέπω-κα ἄμ-πωρι-ς* 'ebb-tide': Skr. *pāti* 'he drinks', *pāna-m* 'drink', Lat. *pōtu-s pōtiō pōtor*, Lith. *pā'ta* (fem.) 'drinking-bout'. Acc. *βῶν* 'bovem': Skr. *gām* 'bovem', cpf. **gōm*, to nom. **gōm-s* (§ 85). Derivative verbal stems in *-ō-*, *ἰπνώ-σω ἰπνω-τίον*: Lat. *aegrō-tu-s*, Lith. *sapnū'ti* 'to dream'.

In the Thessalian dialect *ω* passed into *α* (*ov*): e. g. *ἔδονκε* = *ἔδω-κε*, *γνόνμα* = *γνώ-μη*, *Ἀρίστον* = *Ἀρίστων*.

§ 89. Italic. Lat. *ō*. The fluctuation of the orthography between *o* and *u* in the Umbrian-Samn. dialects points to a close *ō* (cp. short *o* § 81): in Umbr. *u*, *o*, *u*, in Osc. *ú*, *u* (also *uu*, a proof for the length of the vowel), *o*, *u*. Lat. *dō-nu-m*, Falisc. *donum*, Umbr. *řunu*, Osc. *dúnúm*, d]uunated ('donavit'), Mars. *dunom*, Vestin. *duno*: Gr. *δῶρο-ν*. Lat. *pō-tu-s*, Umbr. *puni poni* abl. 'posca': Gr. *πέπω-κα*. Lat. *flōs flōris*, *Flōra*, Osc. *Fluusaí* dat. 'Florae', Sabin. *Flusare* 'Floralí': MHG. *bluost* (fem.) 'blossom, bloom' Ags. *blōstma* (masc.) 'flower', st. **bhlōs*. Umbr. *ař-fertur-e ars-fertur-e* dat. 'adfertori, flaminí', Osc. *regatureí* dat. 'rectori' kenzsur *censtur* nom. 'censores', Umbr. *ařmune* dat. 'alimoni', Akeřunia- *Acersonia*- Osc. *Akudunnia*- 'Aquilonia-', Pelign. *Semunu* gen. 'Semonum', Lat. suffix forms *-tōr-*, *-mōn-*. Abl. sg. of *-o*-stems: Lat. *Gnaivōd*, Umbr. *poplu* 'populo' *somo* 'summo', Osc. *Búvaianúd* 'Boviano' *preivatud* 'privato', Volsc. *vinu* 'vino': Gr. Locr. Cret. *ῶ* 'unde'. Umbr.-Osc. nom. pl. of the same stems in *-ōs*: Umbr. *prinuvatus prinvatur* 'legatí' *screihtor* 'scriptí', Osc. *Núvlanús*

'Nolani': Skr. *vṛkās* Goth. *vulfōs* 'lupi'. Imperatives in *-tōd*: Lat. *estōd*, Umbr. *fertu* 'ferito', Osc. *līkītud licitud* 'liceto', Pel. *petiedū* 'petito' (?), Volsc. *estu* 'esto': Gr. *ἔστω*.

The *ū* instead of the expected *ō* in Lat. *datūr-u-s quae-stūr-a*, *fūr* = Gr. *φῶρ* 'thief', *hū-c* beside *quō* (are they to be compared with *fāg-u-s* beside *equ-o-s*? § 81) and others (Corssen *Aussprache* II² p. 193 f.) is unexplained.

§ 90. Old Irish. In chief accented syllables *a*. *gnāth* 'known, accustomed': Gr. *γνωτό-ς*. *blath* 'bloom, blossom': OHG. *bluot* 'bloom, blossom', fr. st. *bhlē- bhlō-*, cp. Goth. *uf-blēsan -baiblōs* 'to blow up, make to swell', Lat. *flōs*. *lār* 'floor, ground': MHG. *vlur* Ags. *flōr* 'floor', to Gr. *πλῆ- πλω-* Lat. *plē- plō-* 'fill, swell, overflow'. *dā* 'two': Gr. *δί-δεκα*, Skr. Ved. *dvd*, Indg. **dʰuō* 'two' (O.Ir. *dau do* = Indg. **dʰuō*, see § 85). Cp. also O.Cymr. *di-auc* 'segnem' (properly 'not quick'): Gr. *ὠκύ-ς*; O.Cymr. *au* = *a* (Zeuss-Ebel G. C. 93).

Rem. As to whether *ā* was also spoken in Gallic depends, so far as I see, upon the view taken of proper names in *-gnāto-s*. Zeuss-Ebel (p. 16) identify this word with O.Ir. *gnāth*, whereas Thurneysen identifies it with Lat. *gnātu-s* (*Cintugnātus* 'first-born', Keltoroman. p. 2).

In final syllables *ō* passed into *ū*, and became shortened. 1. sg. pres. *no guidiu* 'I beg' *biu* 'I am': cp. Gr. *κλαίω* etc. Nom. sg. of *n*-stems, *air-mitiu* 'reverentia' (acc. *air-mitin n*): Lat. *mentiō*. Dat. (instr.) sg. of *-io*-stems, *cēliu* 'socio': Lat. *modo* (adv.). Voc. pl. *a fīru* 'o viri' fr. prim. Kelt. **uirōs*: Goth. *ōairōs*, Osc. *Núvlanús* 'Nolani'. In *as-biur* 'efferō, dico' fr. **biru* **berō*, *fīru* 'viro' fr. **viru* **virō* this vowel is still reflected only in the labial timbre of the consonant which preceded the once present *u* = *ō*. Cp. on *ō* in unaccented syllables also §§ 613. 634. 657, 2. 6. 7.

§ 91. Germanic. In prim. Germ. *ō*. Goth. *flōdu-s* OHG. *flōt float fluat fluot* OS. Ags. *flōd* O.Icel. *flōð* 'flood, tide': Gr. *πλω-τό-ς* 'swimming', Lat. *plōrāre* (cp. Hom. *δάκρον πλώειν* τ 122). Goth. *fōlir* neut. 'sheath', OHG. *fōtar fuatar fuotar* 'case': Gr. *πῶ-μα* 'lid, cover', Skr. *pā-tra-m* 'vessel, receptacle'. Goth. *fōtu-s* OHG. *fōz foaz fuaz fuoz* OS. Ags. *fōt* O.Icel. *fōtr* 'foot': Gr. Dor.

nom. sg. *πῶς* 'foot'. Goth. *sat-sō* pf. 'sowed' : Gr. ἀπέωκα, ἀν-έωρται, Heracl. ἀν-έωσθαι, pf. of ἀπείημι ἀνίημι fr. rt. *sē-* 'throw, sow'. OHG. *spuot* OS. *spōd* 'success, speed' fr. *spē-* : *spō-*, cp. the ablaut grade *spē-* in Goth. *spē-diza* 'later' Lith. *spė-ti* 'to be at leisure' (§ 76). O.Icel. *ōss* (masc.) 'estuary' : Lat. *ōs* *ōris*, *ōstiu-m*. Nom. pl. Goth. *vulfōs* 'lupi' : Osc. *Núvlanús* 'Nolani'.

Indg. *ō* and *ā* fell together in *ō* in the prim. Germ. period, and were therefore similarly treated in all Germ. dialects. Cp. § 107.

Goth. *ō* was a close sound approaching closely to *ū*, hence it is occasionally also written *u*.

In OHG. *ō* is only retained in the oldest monuments. This became first of all *oa*, *ua*, and then later *uo*, which, from about the year 900, became the universally predominant form. This change of *ō* to *oa* etc. did not take place in unaccented final syllables.

Prim. Germ. final *-ō* became *-a* in Goth. and *-u* in HG. : Goth. *batra* OHG. *biru* = Gr. *πέρω*. Prim. Germ. *-ōn* became *-ō* in Goth. and *-o* in OHG. : Goth. nom. *raþjō* 'number, account', OHG. *hano* 'cock'. See §§ 659—661.

§ 92. Baltic-Slavonic. Slav. *ā*, Lith. (Lett.) *ā*. Lith. *dū-ti* O.Bulg. *da-ti* 'to give' : Lat. *dōs* *dōtis*. Lith. *jū's-ta* O.Bulg. *po-jas-ně* 'girdle' : Gr. ζωσ-τό-ς ζώ-νη. Lith. *nū* 'of, from', O.Bulg. *na* 'on, up' : Gr. *άνω*. Nom. acc. du. masc. of *-o*-stems : Lith. *gerū'-ju* 'the two good (men)' (Nom. sg. *gerūs-is*), O.Bulg. *vlūka* (nom. sg. *vlūkū* 'wolf') : Gr. *λύκω*. Lith. *ū'džius* 'I smell, scent' : Gr. *ὠδ-* in pf. *ὠδ-ωδα*, *ὠσ-ωδης*. Lett. *snūts* 'son-in-law' : Gr. *γινωρό-ς* 'relation, brother'.

In Lithuanian this vowel, when it had the broken ('gestossen') accent, became *u* in final syllables. *gerū* 'ἀγαθῷ' beside *gerū'-ju* 'τῷ ἀγαθῷ'. *sukū* 'I turn' beside the refl. *sukū'-si* *sukū'-s* cp. § 664, 3.

In both sections of this branch final **-ōm*, **-ōn* became **-ūn*, whence Lith. *-u*, O.Bulg. *-y*. Lith. gen. pl. *dėvū* (which properly ought to be written *dėvū̃*), in dialects still *dėvū̃s* (fr. *dėva-s* 'god'), orig. form **dēuōm*, Skr. Ved. *dēvām*, cp. § 218.

O.Bulg. nom. sg. *kamy* 'stone' (st. *kamen-*) fr. **-mōn* : cp. Gr. *ἄκ-μων* 'anvil', OHG. *hano* (prim. Germ. **χανδν*) 'cock', Goth. *raþjō* (prim. Germ. **raþiðn*) 'number, account'. The participle *bery* 'ferens' can quite as well be considered equal to Gr. *φέρων* as to Skr. *bhāran* fr. **bheront-s*. (§§ 84. 219).

Rem. Lith. *szū* 'dog', *akmū* 'stone' have the same formation as Lat. *homō*, Goth. *guma* fr. prim. Germ. **zumō*, Skr. *dśmā*, cp. also Pruss. *smoy* = Lith. *žmū* 'man'. On the other hand the dial. form *szmō* (beside *szū*) is a formation in *-ōn* (cp. Armen. *šun* Gr. *κύων*).

Indg. *a*.

§ 93. Indg. **āgō* 'I drive, lead' (rt. *ag-*): Skr. *ājami*) Arm. *acem*, Gr. *ἄγω*, Lat. *agō*, O.Ir. *agim*, O.Icel. inf. *aka*. Indg. **āgro-s* 'field, acre': Skr. *ājra-s*, Gr. *ἀγρός*, Lat. *ager*, Goth. *akrs*. Skr. *ākṣa-s* Gr. *ἄξων* Lat. *axi-s* OHG. *ahsa* Lith. *aszl-s* O.Bulg. *osī* 'axle'. Indg. **aljo-* 'alius': Armen. *ail*, Gr. *ἄλλο-s*, Lat. *aliu-s*, O.Ir. *aile*, Goth. *alji-s*. Skr. *āpa* Gr. *ἄπο* Lat. *ab* Goth. *af* 'of, from, by'. Skr. *mādati* 'undulates (of water), is drunk, drinks immoderately', Gr. *μυδάω* 'I am wet', Lat. *madeō* 'I drop with wet'. Voc. sg. of *a*-stems in Indg. *-a*: Skr. *ām̐ba* 'O mother', Gr. *μήτερ ἀέσπορα*, O.Bulg. *ženo* 'O wife'. Suffix of the instr. sg. *-a*: Skr. gerunds in *-y-a* and *-ty-a*, e. g. *a-gām-y-a* *a-gā-ty-a* 'by approaching', Gr. *πεδ-ά* (§ 311), *παρ-ά*, *ἄμ-α*, Lat. *ped-e*.

Indg. tautosyllabic *ai*. Skr. *ēdha-s* 'fire-wood', Gr. *αἶθε* 'I burn', Lat. *aedēs* (originally 'fire-place, hearth'), *aestu-s* 'heat, ebullition', O.Ir. *aed* 'fire', OHG. MHG. *eit* Ags. *ād* 'a burning pile', rt. *aīdh-* 'glow'. Skr. *sē-tu-ṣ* 'fettering, binding' *sē-tār-* 'one who puts in fetters', Lat. *sae-ta* 'strong hair, bristle', OHG. *sei-d* (neut.) 'cord, knot', Lith. *sē-ta-s* 'cord', *pá-sai-ti-s* (masc.) 'a binding thong', O.Bulg. *sē-ŕ* (fem.) 'cord', rt. *sai-* 'bind'. 3. sg. mid. in Indg. *-tai*: Skr. *bhāratē*, Gr. *φέρεται* (rt. *bher-ferre*); this orig. form *-tai* is not, however, quite certain, since **-tāi* would also necessarily become Skr. *-tē* Gr. *-ται* (§ 109).

Indg. tautosyllabic *au*. Skr. *ōjas-* (neut.) *ōjman-* (masc.) 'power, strength', Lat. *augeō augus-tu-s augmen augmentu-m*, O.Ir. *ōg* 'integer', Goth. *áuka* 'I add, augment', Lith. *augu* 'I grow'

augmā (gen. *augmeñs*) 'growth, excrescence', rt. *aug-*. Gr. *παύ-σω* 'I shall check', Lat. *pau-cu-s*, cp. Goth. pl. *fav-ái* 'few'.

§ 94. Aryan. Skr. *ápa* Av. *apa* O.Pers. *apa-* 'away, off': Gr. *ἄπο*. Skr. *ásman-* Av. O.Pers. *asman-* 'stone, thunder-bolt, sky': Gr. *ἄμων* 'anvil, thunder-bolt'. Skr. *ávati* 'notices, favours', Av. *avañ-* (neut.) 'protection': Lat. *aveō*. Skr. *yajñá-* Av. *yasna-* (masc.) 'veneration of the gods, offering': Gr. *ἀγρό-ς*, rt. *iağ-*.

Indg. and prim. Ar. tautosyllabic *ai*, *au* became *ē*, *ō* in Skr., *aē* *ōi*, *ao* *ēu* in Av. and *ai*, *au* in O.Pers. (cp. §§ 126. 160):

1. *ai*. Skr. *édha-s* 'fire-wood', Av. *aesma-* (masc.) (Av. *-sm-* fr. *-ām-* is remarkable, cp. however § 403): Gr. *αἶθω*. Skr. *sétu-ś* 'string, bridge', Av. *haetu-ś* 'bridge, way': Lat. *saeta*, rt. *sai-* 'bind'.

Avestic had *ē* for *aē*, when final. Dat. sg. Skr. *gáv-ē* Av. *gav-ōi* *gav-ē* 'bovi': Gr. *ἰδμεν-αι*. 3. sg. mid. Skr. *bháratē*: Gr. *φέρεται*; Av. *vaenaitē* O.Pers. *vainataiy* 'seems'. Nom. Acc. du. of *a*-stems, Skr. *ubhē* Av. *uwē* 'both': O.Bulg. *ženē* (*žena* 'wife').

2. *au*. Skr. *ōjas-* Av. *aojah-* (neut.) 'strength, power' Lat. *auḡus-tu-s*, rt. *auḡ-*. —

Aryan *a* corresponds, in addition to Indg. *a*, also to Indg. *e* (§ 62) and *o* (§ 78), further to Indg. sonant nasal (§§ 228—231) and occasionally to Indg. *ə* (§ 109a). To these was added further in prim. Iran. a new *a* in the combination *ar* = Skr. *ur* *ir*, Indg. *yr* (§ 290). Here may be discussed a few changes which prim. Iran. *a*, irrespective of its origin, underwent in Av.

1. *a* became *e* before *m*, *n* or *v*, and the *e*-quality seems to have been most clearly marked in final syllables, since it is here written most consistently. *nemah-* (neut.) 'reverence': Skr. prim. Ar. *námas-*, Indg. **nemes-*, rt. *nem-*. *te-m* acc. 'the': Skr. prim. Ar. *tá-m*, Indg. **tó-m*, Gr. *τό-ν*. *bare-m* 'I brought': O.Pers. (*a*)-*bara-m* Skr. (*á*)-*bhara-m*, Indg. **(é)-bhero-m*, Gr. (*é*)-*περο-ν*. *dasema-* 'decimus': Skr. *daśamá-* Indg. **dekṃmó-* (§ 231). 3. pl. pres. *bare-nti*, impf. *bare-n*: Skr. *bhára-nti*,

(*i*-)bhara-*n*, Indg. *bhéro-*nti*, *(*é*-)bhero-*nt*, Gr. Dor. φέρο-*vri*, (*é*-)φερο-*v*. *tevīši-* (fem.) 'strength': Skr. *táviṣi-*, rt. *tey-*. *e-vista-* 'unknown': Skr. *á-vitta-*; *a-* = Indg. *ʷ-* (§ 232), cp. also Gr. ἄ-ιστο-ς.

e, which arose from *a* before *m*, *n* or *v*, passed into *i* after *y*, *c*, *j*, *ž*, but the orthography is also here inconsequent. *yi-m* 'quem': Skr. *yá-m*, Gr. ὄ-*v*. *yimá-*, name of a hero: Skr. *yamá-haci-mna-* part. of *haca-itē* 'accompanies', cp. Skr. *sáca-māna-vāc-im* acc. of *vāxš* 'word': Skr. *vāc-am*; -*am* = Indg. -*ṃ(m)* (§ 231 rem.). *jimaḥ* 3. sg. conj. aor. fr. rt. *gem-* 'go', cp. Skr. *gámat* for regular **jámat* (§ 451 rem.). *snaēžint-* 'snowing' to *snaēžaiti* 'snows'.

Rem. The Gāpā dialect had also *ē* for *e* and *i* before *m* *n* *v*, especially in final syllables. *ēmavant-* 'vigorous': late Av. *amavant-* Skr. *āmacant-*. Acc. *kehrp-ēm*: late Av. *kehrp-em* 'figure, body', Skr. *kṛp-am*. *yem* beside *yim*: Skr. *yá-m*. *xšānmēn-ē* dat. fr. *xšān-man-* 'grief, affliction', cp. Skr. *vārtman-ē*. *ē-risti-* 'want of acquaintance' beside late Av. *e-vista-* (see above).

2. *a* became *ē* after *y* before *i*, *ɪ*, *ē*, *y*, *ñh* (fr. Ar. *si*, § 125), *c* or *j* in the following syllable. The orthography is also here inconsistent, since *a* appears also beside *ē*. 3. sg. act. *karayēiti*, 3. pl. act. *karayēinti*, 3. sg. mid. *karayētē* of *karayēmi*, Causat. fr. *kar-* 'make'. *yēsnya-* 'adorable' beside *yasna-* 'offering, price': Skr. *yajñá-* Gr. ἀγνό-ς. Gāp. gen. masc. *yēhya* 'cuius' = Skr. *yásya*, late Av. *yēñhā* (fem.) 'cuius': Skr. *yásyas*. *ip̄yējah-* 'need, danger': Skr. *tyájas-*. Cp. *ē* fr. *a* § 102.

3. *a* became *o* before *u*, *ū* or *v* in the following syllable, especially after labial sounds, and before *r* + consonant. The spelling with *o* is also in this case not consistent; since beside it *a* also occurs. *pouru-š* (fr. **poru-š*, § 638) 'multus' beside nom. pl. *parav-ō*: Skr. *purú-š*, *puráv-as* (§ 290). *vohu* 'bonum': Skr. *vásu*. *mošu* 'soon, quick': Skr. *makṣú*. Gāp. *ver'zyotū* 3. sg. imper. of *ver'zyēmi* 'I work'. *aš-bourva-* 'having much food': cp. Skr. Ved. *sā-bharva-* 'much consuming'. *cor'p* 3. sg. aor. 'made': cp. Skr. *ákar* fr. **a-kart*, prim. Ar. **a-cart*. Cp. *ō* fr. *a* § 102.

§ 95. Armenian. *aseln* (gen. *aslan*) 'needle': Gr. ἄκρο-ς

'point', Lat. *acu-s* 'needle', Lith. *asz-t-rù-s* O.Bulg. *os-t-rü* 'sharp'. *argel* 'hinderance': Gr. ἀρκέω 'I ward or keep off', Lat. *arceō*.

taigr, gen. *taiger* (*g* fr. *u* § 162): Skr. *dēvár-*, Gr. δαήρ (§ 96), Lat. *lēvir* (§§ 65. 368), Ags. *tācor* OHG. *zeihhur* (with remarkable guttural), Lith. *dēver-l-s* O.Bulg. *dēver-ŷ*, Indg. prim. f. **daiuer-* **daiur-* 'husband's brother, brother-in-law' (§ 155 rem. .

§ 96. Greek δάκρυ: Lat. *dacruma lacruma* O.Bret. *dacr* Goth. *tagr* 'tear'. κακός-ς (Hesych.) 'little finger', κακό-ς 'bad' compar. κακίων: Av. *kasu-* 'small' compar. *kasyd*. μακρό-ς 'long': Av. *masah-* 'greatness' O.Pers. *mašīsta-* 'uppermost', Lat. *macer*, OHG. *magar* 'lean'. ἄγχω 'I press tight', ἄγχι 'near': Skr. *āhas-* 'tightness, oppression', Av. *aṣah-* 'tightness, anxiety', Lat. *angō* *angor*, Goth. *aggu-u-s* 'close, tight', Lith. *añkszta-s* 'close, tight', O.Bulg. *ažū-kū* 'tight, close', rt. *añgh-* 'straiten'.

Tautosyllabic *ai* and *av*. λαιός-ς: Lat. *laevo-s*, O.Bulg. *lěvū*, cpf. **laiuo-s* 'left'; here also OHG. *slēo* 'powerless', prim. Germ. **slaiua-z?* αἰών 'time, life-time', αἰεὶ αἰεὶ 'always': Lat. *aevo-m* 'time, life-time', Goth. *áivs* (st. *áiwa-*) 'time'. ναί 'yea, verily': Lat. *nae*. κανό-ς 'stalk': Lat. *cauli-s* 'stalk' *caulae* 'holes, cavities', Lith. *káula-s* 'bone'. δεδαν-μένος, το δαίω (fr. **δαίλω*, § 131) 'I kindle'. αὔ 'again' (αὐ-τε, αὐ-τις): Lat. *au-t*, *aut-em*.

In Boeotian *ai* became *ae* (e. g. Ἀεσχωρώνδης, Ἀυσανίας, inscript. of Tanagra), for which *η* (e. g. ἡί = αἰεὶ) appears from about 400 B. C. and on the latest inscriptions *ει* i. e. close *ē* (e. g. Εἵμων). The same *ει* = *ai* in Thessalian about 220 B. C., e. g. 3. sg. conj. mid. βέλλει-τει = Dor. δήλη-ται 'velit'. Later, but probably not before the second century A. D., *ai* passed into *ē* also elsewhere in Greece.

In Ionic-Attic *ā* fr. *ai(F)* before *e-*, *i-* and *a-* sounds. δαήρ fr. **δαιφρ*: Skr. *dēvár-*. αἰ (αἰεὶ) = αἰεὶ. Hom. αἰσσω Att. ἄττω fr. **φαι-φικ-ω* (a reduplicated form like *δαι-δάλλω*, *παι-φάσσω*). ἐλαῖα = ἐλαι(F)*ā* (cp. the Lat. borrowed word *olīva*). Cp. § 131.

ae for *am* can be established for Ionic from the fifth century B. C. onwards, e. g. αὐτόν = αὐτόν. Cp. *eo* fr. *em* § 64.

§ 97. Italic. Lat. *agō*, Umbr. *aitu* Osc. *actud* 'agito': Gr. ἄγω. Lat. *amb-itu-s*, Umbr. *ambr-etuto* 'circumeunto' (concerning *-b-* cp. § 209), Osc. *amfr-et* 'ambiunt': Gr. ἀμφὶ ἀμφί, 'circum'. Lat. *albu-s*, Umbr. *alfu* 'alba', Osc. *Alafaternum* 'Alfaternorum': Gr. ἀλφός 'white leprosy', cpf. **albho-*. Lat. *caper capra*, Umbr. *cabriner* gen. 'caprini': Gr. κάπρος 'wild-boar', O.Icel. *hafr* 'buck'. Lat. *ante*, Osc. *ant* 'ante': Gr. ἀντί 'opposite', Skr. *ānti* 'opposite, before'. Lat. *am-āru-s* 'bitter': Skr. *am-lā-s am-bla-s* (§ 199) 'sour, sourness'.

In Latin, *a* (we here also take into account *u* = Indg. *a*, § 109 d, and *ar*, *al* which arose from *ǣ*, *l*, § 306) was changed in syllables which were unaccented, in prim. Latin (§ 680):

1. to *a* sound lying between *u* and *i* before labials and *l* in open syllables. *man-cupium* and *man-cipium* beside *capiō capulu-m*. *in-suliō* and *in-siliō* beside *saliō*: Gr. ἄλλομαι 'I spring, leap'. Cp. § 49 p. 42. The orthography fluctuated greatly, and it is questionable whether this fluctuation is not partly to be attributed to the fact that the sound was a different one, when followed by *i*, cp. e. g. *ac-cipiō* beside *oc-cupō*. *sur-ruptus* for *sur-reptus* fr. *rapiō* was certainly formed by analogy (see 3).

2. to *u* before *l* + consonant (except *ll*). *ex-sultō* beside *saltō*, *in-culcāre* beside *calcāre*.

3. to *e* in closed syllables (exceptions under 2), before *r* and finally. *ac-ceptus parti-ceps* beside *capiō man-cupium*, *cōn-fectus arti-fex* beside *faciō cōnficiō*. *ac-centus corni-cen* beside *canō ac-cinō corni-cin-is*. *obstetrīx* beside *stator cōn-stitūō*. *im-pertiō* beside *partiō*. Instr. sg. of consonantal stems, as *ped-e*, *aer-e*, cp. Gr. πεδ-ά, ἄμ-α (cp. § 93 p. 87); perhaps also *inde* = Gr. ἐνθα. *red-dere* beside *dare*.

4. to *i* in open syllables (exceptions under 1. 3. 5.) and before *ng*. *ad-igō* beside *agō*. *concinō* beside *canō*. *Juppiter* beside *pater*. *cōn-stituō* beside *statuō*. *sisti-te* = Gr. ἵστα-τε. *in-situs* beside *satus*. *serite* fr. **si-sa-te* (§ 33) = Gr. *ἵατε, the older form of ἵετε (§ 109 c). *red-ditus* beside *datus*. *at-tingō* beside *tangō*.

5. *-ay-* became *-u-*: *ē-luō ē-luācru-s* beside *lavācru-m* and (O.Lat.) *lavere*, s. § 172, 1. *-ua-* probably also became *-u-*: *con-cutiō con-cussus* beside *quatiō quassus*¹⁾.

Before the christian era tautosyllabic *ai* became *ē* in Latin (having passed through the intermediate stage *aē*). This change occurs earliest in the popular language. The various stages of the change cannot be precisely fixed chronologically, since the orthography inconsistently retained *ai* and *ae* long after the monophthongic pronunciation was established; *ai* is still found on inscriptions under the Empire. *aidīli-s aedēs*: Gr. *αἰθω* (cp. § 93). *caecus Caicilius Caecilius Cēcilius*: O.Ir. *caech* 'blind', Goth. *háihs* 'blind'. *haedus ēdus*: Goth. *gáits* 'goat'. *lēvir* (popularly connected with *vir*, s. § 65): Gr. *δᾱήρ* (§ 96), Skr. *dēvár-*, Indg. **daiuér-* 'husband's brother'.

ai became *ī* in prim. Lat. secondary accented syllables. *in-quīro* beside *quaerō quaistor quaestor*. *ex-īstumō* beside *aestumō*. Cp. also *mēnsīs* fr. **mensaiś* (Osc. *diumpaiś* 'lumpis, nymphis'), the *-aiś* of which arose from *-aiś* (§ 612). Concerning *ex-quaerō* and the like cp. § 65 rem. 3.

Tautosyllabic *ay*. *aurōr-a* fr. **auz-ōz-ā* (§ 569): Gr. *ἄγχο-ς* 'near the morning' *ἄγχιον* 'morning' from stem **aiōgo-*, O.Icel. *austr* OHG. OS. *ōstar* adv. 'eastwards', Lith. *ausz-rā* day-break'. *auri-s*: Goth. *áusō* (Gen. *áusins*) Lith. *ausl-s* 'ear'. This *ay* became *aō* (cp. *aē* fr. *ai*) in the popular language and later *āō* or the pure monophthong *ā*, as the orthography *o* shows, e. g. *oricula* = *auricula*. Unaccented *ay* before *u* appears, in the time of the Emperors, as *a*, e. g. *Agustus*, *asculto*, *augurium*.

To the proportion *in-quīrō* : *quaerō* correspond *in-clūdō* : *claudō* and *dē-frūdō* : *fraudor*. Concerning *con-clausu-s* and like forms cp. § 65 rem. 3.

Tautosyllabic *ai* and *ay* remained diphthongic in Oscan, whilst in Umbrian they became respectively *ē* and *ō*.

1) Cp. Thurneysen Über Herkunft und Bildung der lat. Verba auf *-io* p. 51. Otherwise Osthoff Zur Gesch. des Perf. 585 and Bersu Die Guturalen und ihre Verbindung mit *v* im Lat. 132.

Osc. *svaí svae* Umbr. *sve* 'si' (Volsc. *sepis* 'siquis'), probably = Gr. *ai*. Osc. *Alifineis* (or *Alifneis*) gen. 'Aedini', to Lat. *aedēs* (Osc. *aidil* 'aedilis' was a borrowed word, as is shown by the *d*).

Osc. *avti*, Umbr. *ote*: Lat. *aut*, Gr. *av̄*, *av̄re*. Umbr. *oht*. (abbreviation) *uhtretie* 'auctoritate': Lat. *auctor*. Cp. also Osc. *taurom* 'taurum', Umbr. *toru* 'tauros': Lat. *taurus*.

§ 98. Old Irish. *anim* 'soul' *anl* 'breath': Gr. *ἄνε-μο-ς* 'wind', Lat. *ani-mu-s ani-ma*, Skr. *āni-ti* 'breathes', Goth. *us-anan* 'to exhale'. *canim* 'I sing': Lat. *canō*, Goth. *hana* 'cock'. *aile* 'alius': Gr. *ἄλλο-ς*, Lat. *aliu-s*. *alim* 'I nourish, bring up': Lat. *alō*, Goth. *ala* 'I grow up'. Cp. also Cymr. *am* = Gr. *ἀμφί*; Gall. *ad-* in *Ad-magetobriga* and others, O.Ir. *ad-* in *ad-glādur* 'I address' and other words = Lat. *ad*.

In forms like *aile* 'alius', gen. *maicc* fr. **mak̄u* (Ogam inscrip. still *maqui*) 'filii' (nom. *macc* fr. prim. Kelt. **mak̄u-s*), the *i* following *a* denotes the palatal timbre of the following consonant. In like manner *u* denotes the *u*-timbre of the same consonant, e. g. in 1. sg. *ad-gaur* 'I forbid' for **garu* **garō* (cp. *gair* 'call' and Gr. Dor. *γᾶρυ-ς* 'speech') and others. S. § 640. Original *a*, so far as it did not entirely disappear (§ 634), appears mostly as *a* in unaccented syllables, e. g. *cúm-ang* 'angustus' (Lat. *angustu-s* Gr. *ἄλλω*)¹), beside the *u* and *i*, caused by the timbre of the following vowel, e. g. *for-cón-gur* 'praecipio' beside *ad-gáur*.

Indg. tautosyllabic *aḱ* became *ag*. *caech* 'blind': Lat. *caecu-s*. *aed* 'fire': Gr. *αἶθω*. Before palatalised consonants *ai*, e. g. *caich* nom. pl. 'caeci' fr. **caicī*.

aḱ became *ī* in final syllables. *dī* (fem.) 'two': Skr. *dvé*, Indg. **dyái*; the change to *ī* may here have taken place, when the word did not have the chief accent. *ī* in orig. polysyllabic forms is still only recognisable in the palatalisation, as *du. tuaith* (sg. *tuath* 'people' = Goth. *þiuda*) fr. **tōtī*, older **teptaḱ* (§ 657, 4).

Indg. tautosyllabic *au* appears, when accented, as *au*, *ō*: *ō*

1) Concerning the root of this adj. cp. Zimmer Kelt. Stud. II 79.

'ear' dat. pl. *auib*, *au-nasc* 'ear-ring': Lat. *auri-s*. *ōg* 'integer': Lat. *augeō*.

§ 99. Germanic. Goth. *ahva* OHG.OS. *aha* 'water, river': Lat. *aqua*. Goth. *skaban* OHG. *scaban* Ags. *scafan* O.Icel. *skafa* 'to scrape': Gr. *σκαπάνη* 'spade' *σκάπτω* 'I dig', O.Lat. *scaprēs* 'shabby, rough' Lat. *scabō* 'I scrape, scratch', rt. *sqap- sqab-* (§ 469, 7). Goth. *haban* OHG. *habēn* Ags. *habban* O.Icel. *hafa* 'to have': Lat. *habeō*, cpf. of the stem **khabhē-* (§ 553). Goth. O.Icel. OS. *salt* OHG. *salz* 'salt': Armen. *ał* Gr. *ἄλς* Lat. pl. *salēs* O.Ir. *salann* O.Bulg. *solŭ* 'salt'.

Rem. Concerning the falling together of Indg. *a* and *o* in Germ. see § 83 rem. 1. Indg. *a* appears as *o* in other than chief accented syllables, e. g. in *ob*, *of*, the Westgerm. proclitic forms of the prep. *ab af* 'of' (Gr. *ἀπό*, Lat. *ab*), e. g. OHG. *ob-lāzan* 'dimittere'. Cp. Paul in Paul and Braune's Beitr. VI pp. 186, 191.

Indg. tautosyllabic *ai*. Goth. *skáidan* OHG. *sceidan* OS. *scēthan* Ags. *scādan* 'separate': Lat. *caedō* 'I hew, cut out', rt. *sqhaiŭ- sqhaiŭd-* (§§ 469, 7. 553). OHG. *eid* Ags. *ad* 'rogus, ignis': Gr. *αἶθω*.

Indg. tautosyllabic *au*. Goth. *áuk* 'for, but', OHG. *auh* OS. *ōk* Ags. *eác* 'also', O.Icel. *auk* 'thereto', to Goth. *áukan* 'to increase': Lat. *augeō*.

The special OHG. treatment of *a*, *ai*, *au* has been stated in § 83. According to the sound-laws given there, are to be explained e. g. the following forms: *eli-lenti* fr. older *ali-lanti* 'from another land, strange': Goth. *alji-s*, Lat. *alius*. *erran* fr. **erjan*: Goth. *arjan* 'to plough', Lat. *arō*. *ēwīn*: Goth. *áiweins* 'eternal', Gr. *αἰών*, Lat. *aevo-m*. *auh*, later *ouh*: Goth. *áuk* (see above). *ōra*: Goth. *áusō* 'ear', Lat. *auri-s*, Lith. *ausl-s*.

§ 100. Baltic-Slavonic. Indg. *a* became *o* in the Baltic-Slav. unitary period, and fell entirely together with Indg. *o* (§ 84).

Lith. *nas-raĩ* pl. 'throat', O.Bulg. *nos-ŭ* 'nose': Skr. *nás-* OHG. *nas-a* 'nose'; that the rt. is Indg. **nas-*, not **nos-*, follows from Lat. *nār-ēs*, Lith. *nós-i-s* (fem.) 'nose' which stand in ablaut relation to the above words. Lith. *ariù* O.Bulg. *orjq* 'I plough': Armen. *araur* 'plough', Gr. *ἀρόω* Lat. *arō* 'I plough', O.Ir.

arathar 'plough', Goth. *arja* 'I plough'. Lith. *ākla-s* 'blind': Lat. *aquila-s* 'dark'. Lith. *algà* 'pay, reward': Skr. *arghá-* m. n. 'worth, value, gift of honour', Gr. ἀλγή ἄλφημα 'wage', fr. rt. *algh-*. O.Bulg. *otŭ-cŭ* 'father': Skr. *atti-atta-* 'elder sister', the latter also 'mother', Gr. ἄττα 'father', O.Ir. *aite* 'foster-father, trainer'. O.Bulg. instr. sg. *ženojā* voc. sg. *ženo* of *žena* 'wife': Skr. instr. sg. *jihvāja* (nom. *jihvā* 'tongue'), Gr. voc. sg. *νύμφᾱ* (nom. Dor. *νύμφα*).

With regard to the following sound-developments compare the laws given in § 84.

Slav. *a* before explosives and spirants. O.Bulg. *qzŭ-kŭ* 'narrow', *a-chati* 'odorari' (s. § 219).

Slav. *ie* fr. *io*. Voc. sg. *zmije*, *duše*, to nom. sg. *zmija* 'serpent', *duša* (fr. **dūchjā*, §§ 147 rem. 3. 588, 3) 'soul', cp. *ženo* from *žena*. Instr. sg. *jeja*, nom. sg. *ja* 'she', cp. *tojā* from *ta* 'the'.

Indg. tautosyllabic *ai* as *ē* and *ai* in Lith. and as *ē* in Slav. Lith. *dēver-i-s* O.Bulg. *dēver-ŭ* 'brother-in-law': Gr. δᾱήρ fr. **dauFηρ* (§ 96). Nom. du. fem. Lith. *tē-dvi* (*-dvi* = *dvi* 'two') O.Bulg. *tē* from st. **ta-* 'the': Skr. *tē*, perhaps also Gr. ταί Lat. *istae* (see Brugmann, Kuhn's Ztschr. XXVII p. 199 ff.), Indg. **tāi*. Lith. *pā-saiti-s* m. 'a binding thong', *sēta-s* 'cord' (cp. also *at-saj-à* 'trace of a horse'), O.Bulg. *sētī* f. 'cord' fr. rt. *sai-* 'bind'. Lith. *skēdà* and *skēdrà* 'chip' *skaištŭ-s* and *skáista-s* 'clear': Lat. *caedō* part. *caesus*, *caesius* 'clear-eyed', Goth. *skáidan* 'separate'. O.Bulg. *lěvŭ* 'left': Lat. *laevo-s*.

Before this *ē* in Slav. *k* becomes *c*, e. g. *raqčē* nom. du. of *raqa* 'hand'.

Rem. Concerning the change between *ē* and *ai* in Lith. see § 84 rem. 2, concerning final Slav. *ē* see § 84 rem. 3.

Slav. *ji* fr. **iei*, **ioi*. Nom. du. fem. *zmiji* of *zmija* 'serpent', *duši* of *duša* 'soul', cp. *raqčē*. Likewise *ji* 'they, they two' = Skr. *yē*, Indg. **iāi*.

Indg. tautosyllabic *au*, as *au* in Lith. and *u* in Slav. Lith. *saūsa-s* O.Bulg. *suchŭ* 'dry': Skr. *śōṣa-s* (fr. **sōṣa-s*, § 557, 4) 'a drying up', Gr. αῦω 'I dry, make dry' fr. **σαυσω* (§ 564), Ags. *seār* 'withered, dry' OHG. *sōrēn* 'to parch' O.Icel. *saurr* 'mud', fr. rt. *saus-*. Lith. *augmŭ* (gen. *augmeŭs*) 'growth, ex-

cf. p. 562

crescence': Lat. *augmen-tu-m*. O.Bulg. *u-* 'off, away' (*u-myti* 'to wash off', *u-dati* 'to give away, *ἐκδοῦναι θυγατέρα*'), Pruss. *au-* 'off, away' (*au-mu-sna-n* acc. 'ablution'): Lat. *au-, au-ferre*.

Indg. *a*.

§ 101. Indg. **bhāghu-s* 'elbow': Skr. *bahú-ś* 'arm', Gr. Dor. *πᾶχv-s* 'fore-arm, elbow', OHG. *buog* O.Icel. *bōgr* 'elbow' Indg. **mā-ter-* 'mother': Skr. *mātár-*, Arm. *mair*, Gr. Dor. *μάτηρ*, Lat. *māter*, O.Ir. *máthir*, OHG. *muoter* O.Icel. *mōðer mōðir*, Lith. *motė* ('wife'), O.Bulg. *mati*.

Indg. fem. suffixes *-ā-*, *-tā-*, *-iā-* etc.: Skr. *áśva* 'mare', *sā* 'the', Gr. *χώρα* 'land', Dor. *ᾶ* 'the', Lat. dat. abl. pl. *dextrā-bus*, O.Ir. dat. instr. pl. *mnāib* fr. st. *mnā-* fr. **bnā-* (nom. sg. *ben* 'woman', s. § 520) = Skr. *gnā-* 'woman', Goth. dat. pl. *gibō-m* fr. st. *gibō-*, nom. sg. *giba* 'gift', *sō* 'the' f., Lith. instr. pl. *rañko-mis* fr. st. *ranko-*, nom. sg. *rankà* 'hand', O.Bulg. instr. pl. *raķa-mi* fr. stem *raķa-*, nom. sg. *raķa* 'hand'. Indg. conjunctive suffixes *-ā-*, *-iā-*, etc., stem **bherā-* from *bher-* 'bear': Skr. 2. pl. *bhāra-tha*, Lat. *ferā-tis*, O.Ir. 1. pl. *do-bera-m*, O.Bulg. 1. sg. *berā* fr. **bherā-m* (cp. Brugmann Morph. Unt. I p. 145, III p. 30 f., Kuhn's Ztschr. XXVII p. 419)¹). Indg. pres. suffix form *-nā-*: Skr. *mi-nā-mi* fr. rt. *meṭ-* 'lessen', Gr. Hom. *δάμvη-μi*. *-tām* Indg. personal ending of the 3. du. act.: Skr. *ábhara-tām*, Gr. Dor. *ἐπερέ-τᾶν*, Indg. **ébhere-tām* fr. rt. *bher-* 'bear'.

The tautosyllabic diphthongs *āi* and *āu* were not, as it seems, frequent in prim. Indg. *-āi* ending of the dat. sg. of *ā*-stems: Skr. *su(v)-apatyāi* (*su(v)-apatyā-* 'having a beautiful posterity'), Gr. *χώρα*, O.Lat. *Matūta* 'Matutae', Goth. *gibai* 'to a gift'. Skr. *nāuś* 'ship', Gr. *ναῖς* fr. **nāu-* (§ 611).

§ 102. Aryan. Skr. *sthāna-* n., Av. O.Pers. *stāna-* n. 'standing, standing-place, place of abode': Gr. *δύστηνος* fr. **δυσ-στανvος* 'in evil plight', Lith. *stóna-s* 'position', O.Bulg. *stanū* 'position, bed'. Skr. acc. *nāv-am* 'navem', (ved.) *nāv-iyā* f. 'a navigable river', Av. *nāv-ya-* 'flowing': acc. Gr. Hom. *vῆ(F)-α*, Lat. *nāv-em*.

1) Gr. *πρώμεν*, *φύρτε* for **φραῖμεν*, *φρατε* with vowel quality after the analogy of the indic. and conj. forms with *o*, *e* as Hom. conj. *ῥομεν*, *ἀλγίσσετε*, Att. indic. *πρόμεν*. *φύρετε*.

Skr. *sēnā-m* O.Pers. *hainā-m* acc. sg., Av. *haēnā-hu* loc. pl. fr. st. *sēnā hainā haēnā-* (prim. Ar. **sajnā-*) 'army'. Conj. Skr. *vāhā-si* Av. *vazā-hi* 'vehas', O.Pers. *parsā-hy* = Skr. *pychā-si* 'poscas'. —

Aryan *ā* corresponds not only to Indg. *a* but also to Indg. *ē* (§ 70), *ō* (§ 86), and to long sonant nasal (§ 253). Here may be discussed certain changes which prim. Iran. *ā*, irrespective of its origin, underwent in Avestic.

1. After *y*, *ā* became *ē* before *i*, *ī*, *ē*, *y*, *c* or *j* in the following syllable. *kārayēmi* : Skr. *kārayāmi* causat. fr. *kar-* 'make', cp. Lat. *moneō*. *ver'zyēiti* 3. sg. act., *ver'zyēitē* 3. sg. mid. conj. of *ver'zyēmi* 'I work, do' : cp. Lat. *capiat*, *capiātur*. Cp. *e* fr. *a* § 94.

2. *ā* became *ō* before *u*, *ū* or *v* in the following syllable, but the orthography is mostly inexact, since *ā* also occurs. *vī-đōtu-š* 'demon of the dead' beside abl. *vī-dātaoḥ*. Cp. *o* fr. *a* § 94.

3. *ā* became *ā* before *ṇh* (fr. *s*, § 558) and before nasal + explosive sounds. *nāṇhā-* 'nose' : O.Pers. *nāha-m* acc., Skr. *nāsā-*, cp. Lat. *nār-ēs*. *yāṇhqm* gen. pl. from *yā-* 'quae' (Gr. *ῆ*) : Skr. *yāsām*. *māṇha-* 'moon' : Skr. *māsa-*. *uṣṇh-em* acc. 'dawn' : Skr. *uṣṇs-am*, cp. Lat. *aurōr-a*. *vānti* 'they blow' : Skr. *vānti*, Gr. *ἄεισι* fr. **āFη-vti* (§ 611). *barānti* 3. pl. conj. of *barāmi* 'I bring' : Lat. *ferant*.

§ 103. Armenian. *elbair*, gen. *elbaur*, 'brother' (§ 263) : Skr. *bhrātar-*, Gr. *φρατήρ* (member of a *φρατρία*), Lat. *frāter*, O.Ir. *bráthir*, Goth. *brōþar*, Lith. *broter-ėli-s* ('little brother'), O.Bulg. *bratr-ŭ*, Indg. **bhrātor-* 'brother'. *nav*, gen. *navu*, 'ship' : Skr. acc. sg. *nāv-am*; the Arm. word is, however, not free from the suspicion of having been borrowed from Persian.

§ 104. Greek. Dor. *ᾄδύ-ς* : Skr. *svādū-ś*, Lat. *suāvis* (*svāvis*) fr. **sṃād-u-i-s* (§ 170), OS. *swōti* OHG. *swuazi suozi* (prim. Germ. **sṃōt-ia-*), Indg. **sṃād-u-* 'sweet, lovely'. *δέ-δῃ(F)-ε* 'it burns' *δήιον* (*δάφιον*) *πῦρ* : Skr. *dāvā-s* 'fire-brand'. Dor. *φᾱ-μι* 'I say', fut. *φᾱ-σω*, *φᾱ-μᾱ* 'voice, saying' : Lat. *fā-rī*, *fā-ma*, *fā-bula*, O.Bulg. *ba-jati* 'fabulari'. Nominal suffix *-τᾱτ-*, Dor. *ρεό-*

-*τᾱς* -*τᾱτ-ος* 'youth' : Skr. *dēvā-tāt-* (gen. *dēvā-tāt-as*) 'deity, worship', Lat. *novi-tas*, gen. *novi-tāt-is*, 'novelty'.

In Ionic-Attic *ā* became *η* : ἡδύς, φημί, νεότης. This was in certain Ionic dialects an open *ē* in comparison with the Indg. *ē* in *θή-σω* (§ 72). This passage to *η* is older than the first appearance of Att. Ion. *τᾱς*, *πᾱσα* fr. *τάνς*, *πάνσα* (§§ 205. 618). Forms like *ὕγια ἐνδεᾶ* beside *σαφῆ* fr. -*ε(σ)-α* etc. render it more probable that the *ā* in Att. *ἰᾶσομαι*, *καρδίᾱ*, *γενεᾶ*, *οικίᾱ*, *πράττω*, *χώρᾱ* etc. (Ion. *ἰήσομαι*, *καρδίη*, *γενεή*, *οικύη*, *πρήσσω*, *χώρη*) goes back to an open *ē* than that it should be an unchanged Indg. and prim. Gr. *ā*.

§ 105. Italic. Lat. *māter*, gen. sg. Umbr. *matrer* Osc. *maatreis* : Gr. Dor. *μάτηρ*. Lat. *pāc-* 'peace', Umbr. *pase* 'pace', Osc. *Paakul* 'Paculus' (cp. *Pacuvius*) : Skr. *pāśa-s* 'knot, cord', Gr. Dor. *πάγνυμι* 'I fasten', OHG. *hī-fuoga* 'match-maker (of marriage)' fem., MHH. *vuoge* 'joint'. Lat. *Stātius*, Osc. *Staatiiis* 'Statius', fr. *stā-* 'stand'. Feminine suffix -*ā-* : Lat. *dextrā-bus*, *istā-rum*, Gen. *familiās*, Umbr. *sestentasia-ru* 'sextantariarum' *tutas* 'civitatis', Osc. *paa-m* 'quam' *egma-zum* 'rerum' *multas* gen. 'multae' : Gr. st. *χωρᾱ*, *τᾱ-*. Verbal stems in -*ā* : Lat. *testā-* in *testā-tu-s* *testā-mentu-m*, Umbr. *katera-mu* *cateraha-mo* (-*aha* = -*ā*, § 23) 'catervamini', Osc. *trīstaamentud* abl. 'testamento' : Gr. *πειρά-* 'try' in *πειρά-σομαι*, *πειρά-τέον*. Lat. *fāgu-s* 'beech' : Gr. Dor. *φᾱγό-ς* 'oak', OHG. *buocha* Ags. *bōc* 'beech', Goth. *bōka* 'letter'. Lat. conjunct. *sistā-tur*, *sternā-tur*, *sistā-mus*, *sternā-mus* : Gr. Arcad. *ἵστᾱ-ροι*, Skr. 3. sg. *sthā-ti* (*sthā-* 'stand'), 1. pl. *yu-nā-ma* (*yu-* 'yoke, draw tight'), cp. §§ 111 rem. and 113.

In Umbrian open *ō* fr. *ā* in the nom. sg. of *ā*-stems and in the nom. acc. pl. neut. of *o*-stems, as the fluctuation between *o* (*u*) and *a* shows. *etantu mutu* 'tanta multa' and *panta muta* 'quanta multa'. *vesklu* and *veskla* 'vascula'. *triiu-per trio-per* 'ter' and *triiā* 'tria'. The same *o*-sound in *pihaz pihos* 'piatus', *Casilos* 'Casilas' (dat. *Kasilate Casilate*). In Oscan likewise *ú*, *u*, *o*, *u* for the final *ā* in the nom. sg. of *ā*-stems and in the nom. acc. pl. neut. of *o*-stems. Fem. *víu víu* 'via', *molto*

'multa', *rofro* 'civitas'. Neut. *teremenniú* 'termina', *comono* 'comitia', *petiro-pert petiru-pert* 'quater'. Cp. § 655, 2.

§ 106. Old Irish. *ag*, gen. *āga*, 'combat': Skr. *ājī-ś* 'race, pugilistic combat', Lat. *amb-āgēs* 'circuit, way'. -*tau* 'am': Lit. *pa-stóju* 'I become something', cpf. **stā-ĩō* fr. rt. *stā* 'stand'.

In the following examples the *i* after *a* indicates the *i*-timbre of the following consonant. *faith* 'poet' fr. **yāti-s*: Lat. *vātēs*, cpf. of the stem **yāti-*. *taid* 'thief': O.Bulg. *tatī*, cpf. of the stem **tati-*, Skr. *tāyū-ś* 'thief', Gr. Dor. *rārāouai* 'am bereft, in want'. *gair* 'call, cry': Gr. Dor. *γᾶρ-v-ς* 'voice, speech'. Cp. § 640.

In unaccented syllables mostly *a* for *ā*. *túatha* nom. pl. of fem. *tuath* (fr. **teyā*) 'folk' beside *mnd* fr. st. *mndā* 'woman'. Adjectives in -*ach* fr. **-āco-s* (cp. Gall. *Benācu-s*, *Dumnācu-s* and others), as *cnoc-ach* 'hilly' from *cnocc* 'hill'. Cp. §§ 613. 657. Concerning the dat. pl. *túathaib* i. e. *túath'ib* s. § 640.

§ 107. Germanic. Goth. *sōkjan* OHG. *sōhhan soahhan suahhan suohhan* OS. *sōkian* 'to seek': Gr. Dor. *ἀγέουαι* 'I lead or show the way', Lat. *sāgu-s* 'predicting' *sāgīre* 'I track, perceive'. Goth. *stōls* 'throne', OHG. *stuol* OS. Ags. *stōl* O.Icel. *stōll* 'stool': Lith. *pa-stōla-s* 'frame, scaffold'. Goth. *brōþar* OHG. *bruoder* O.Icel. *brōðer brōðir* 'brother': Lat. *frāter*. Verbal stems in -*ō*, e. g. *salbō-* 'anoint' part. pass. Goth. *salbōps* OHG. -*salbōt* 'anointed': Gr. *πειρά-πειράριον*, Lat. *testā- testatu-s*.

Indg. *ā* and *ō* fell together in *ō* already in prim. Germ., s. § 91. What was there said concerning the treatment of *ō* = Indg. *ō* in Goth. and OHG., also holds good for *ō* = Indg. *ā*. For the shortening of final *ō* in polysyllabic words cp. e. g. Goth. nom. sg. *þiuda* fr. prim. Germ. **þeydō*, orig. **teyā*.

§ 108. Baltic-Slavonic. Lith. *ō*, Lett. Pruss. *ā*, O.Bulg. *a* (prim. Slav. *a*, s. § 615).

Lith. *broter-ėli-s* 'little brother' *brōli-s* 'brother', Lett. *brāli-s* 'brother', Pruss. voc. *brāti*, O.Bulg. *bratr-ŭ* 'brother': Lat. *frāter*. Lith. *motė* 'wife', Lett. *māte* 'mother', Pruss. *po-mātre*

'step-mother', O.Bulg. *mati* 'mother' : Lat. *māter*. Inf. Lith. *stó-ti* Lett. *stá-t* Pruss. *stā-t* O.Bulg. *sta-ti* fr. rt. *stā-* 'stand'. Dat. pl. of *a*-stems: Lith. *žēmó-ms* Lett. *šimá-m* O.Bulg. *zima-mū*, nom. sing. *žēmà šima zima* 'winter'. Lith. *nósi-s* f. 'nose' : Lat. pl. *nārēs*, Skr. Ved. du. *nās-a*. O.Bulg. *tajī* adv. 'secretly' : Av. *tāya-* 'theft' Skr. *tayú-ś* 'thief'.

a is to be inferred for the Baltic unitary period. This *a* remained in Lett. and Pruss., whilst it became *ō* in Lithuanian. Lith. *ō* is still pronounced very open in the Memel dialect, whereas elsewhere, probably in most places where Lithuanian is spoken, it has a close articulation. The universal Lith. shortening of the broken accented vowel e. g. in the nom. sg. *žēmà* (orig. f. **gheĩ-mā*) arose at a time when *a*, or at all events an *ō* differing very little from pure *a*, was still spoken (§ 664, 3). This short *a* just as *a* = Indg. *o* (§ 84) is pronounced as open *e* in many dialects after *j* and palatalised consonants, e. g. *gijè* = *gijà* f. 'thread', *gìre* = *giria* 'forest'.

a arose in Slav. in those cases where *a* with the following nasal became a nasal-vowel. Acc. sg. *ženā* 'wife', orig. f. **genā-m*. 1. sg. *vezā* 'veho' = Lat. *veham*, cpf. **ueghā-m*. Cp. § 219.

Indg. *ə*.

§ 109. This vowel, whose quality cannot be more precisely determined — it may be pronounced as a sound lying between *a* and *e* — appears in many root syllables as the sonant of the secondary accented weak grade (§§ 315—317). We denote it by *ə* following the general practice of writing *ə* for the 'indistinct vowel-sound'.

In Armenian and European it fell together with Indg. *α* (§§ 93—100) (for the representation of it in Greek s. below), but was still separated from this in Aryan: Indg. *a* = Ar. *a*, but Indg. *ə* = Ar. *i*, only before *i*-vowels = *a* (cp. Hübschmann Das idg. Vocalsystem p. 1 ff.).

Indg. **pə-tér-* 'father' : Skr. *pitár-*, Arm. *hair* gen. *haur*, Gr. *πατήρ*, Lat. *pater*, O.Ir. *athir*, Goth. *fadar*. Indg. *stə-*,

weak form of the rt. *stā-* (Gr. *στα-*, Lat. *stā-*) : Skr. *sthi-tá-s* 'standing' *sthi-ti-ṣ* 'standing, stability', Gr. *στα-τό-ς στα-σί-ς*, Lat. *sta-tu-s sta-tiō*, Goth. *sta-þs* (st. *stadi-*) 'place', Lith. *sta-taũ* 'I place', O.Bulg. *sto-jq* 'I stand'. Indg. *də-* weak form of the rt. *dō-* (Gr. *δω-*, Lat. *dō-*) : Skr. 3. sg. aor. mid. *á-di-ta* (act. *á-dā-t*), Arm. *ta-mk* 'damus', Gr. *δά-voς* n. 'gift, loan', *ἔ-δο-το δο-τό-ς δό-σι-ς*, Lat. *da-mus da-tus da-tor*, Lith. part. pf. act. *dā-vęs*.

a. Aryan. Skr. *pi-tā* Av. *pi-ta* O.Pers. *pi-tā* 'father' : Gr. *πα-τήρ*. Skr. *mi-tā-* Av. *mi-ta-* 'measured', Skr. Av. *mi-ti-f* 'measure', Indg. **mā-tó-*, **mā-ti-*, Gr. *μέ-τρο-ν*, fr. rt. *mē-* (Lat. *mē-tior*, Skr. *mā-trā-* 'scale'). Skr. *sā-di-ta-s* 'fettered' *á-di-ti-ṣ* 'unbound, boundless' : Gr. *σύν-δε-το-ς δέ-σι-ς*, fr. rt. *dē-* (Gr. *δί-δη* 'he bound' *ὑπό-δη-μα* 'sandal', Skr. *dā-man-* 'string').

On the other hand *ə* became *a* before *i*-vowels. The optative, formed fr. the rts. *stā-*, *dhē-*, *dō-*, was in Indg. 1. sg. act. **stā-īē-m*, 2. pl. **stā-ī-té* (fr. **stā-ī-te* like **bhérojite* = *φείροιτε* fr. **bhero-ī-te*), 3. pl. **stā-ī-nt*, analogously **dhā-īē-m* etc.; thence prim. Ar. **staiām* **staiṭa* **staiant*, **dhaiām* etc. The *ē* in the Skr. forms act. 1. pl. **sthēma* 2. pl. **sthēta*, 3. sg. mid. **sthēta* (= Gr. *σταιμεν*, *σταιρε*, **σταιρο*) was transferred to the forms with *-ay-* (cp. Skr. 3. pl. *bhārēy-ur* with Av. *baray-en* with *ē* instead of *ā* after *bhārēma* etc.), hence Skr. *sthēyām* *dhēyām* *dēyām*, *sthēyur* etc.; *sthēyāma* is formed after the analogy of *sthēyām*, like *s-yā-ma* for **s-ī-ma* (Lat. *sīmus*). Cp. § 116. Further Skr. *-ay-* and *-ē-* = *-ai-* in *dháyami* 'I suck' : Goth. *daddja* 'I suckle' (§ 142) O.Bulg. *dojq* 'I suckle'; and in *dhē-nú-ṣ* 'milking', fr. rt. *dhē(ī)-* (cp. Hübschmann as above p. 21 ff. 79).

b. Armenian. *ta-m* 'do' *ta-mk* 'damus' fr. rt. form *də-* 'give'. *dail* (*dal*) 'beastings' *dayeak* (gen. *dayeki*) 'wet-nurse' fr. *dhāi-*, weak grade to rt. *dhē(ī)-* 'suck' (cp. a.). *ba-n* 'λόγο-ς' (rt. *bhā-*) either from *bhə-* (Gr. *φα-μὲν*) or *bhā-* (Gr. *φη-μι*, Lat. *fā-ma*), see § 316.

c. Greek. *ἄ-δην* 'abundantly, enough' : Lat. *sa-tur sā-tis*, O.Ir. *sa-thech* 'satiated', Goth. *sa-þs* 'satiated', Skr. *a-si-nv-ā-*

'insatiable', fr. rt. *sā-* (O.Ir. *sāith* 'satiety', Goth. *sōþs* 'satisfying', Lith. *só-ti-s* f. 'satisfying, satiety'). *παλαι-φα-το-ς* *φά-τι-ς* *φα-μὲν* fr. rt. *bha-* 'speak'. *λαθεῖν* beside *λήθειν* 'to escape', rt. *lāth-*. *τακερός* 'easy to melt' *τακῆναι* beside *τήκειν*, rt. *tāk-*.

The weak grade forms of *a*-roots regularly retained *a*. In like manner also the forms which became isolated through their development of meaning: *δά-νος* fr. rt. *dō-* and *λαγ-αρό-ς* 'slack, thin' *λαγ-όνες* 'the flanks, loins': Lat. *laxu-s*, OHG. *slach* OS. *slac* 'slack' O.Icel. *slakr* 'slack, idle' fr. rt. *slæg-* (Gr. *λήγω* 'I leave off' *ἄ-λληκτο-ς* 'incessant'); also *δάκτυλο-ς* 'finger', in case it is connected with O.Icel. *taka* 'to take' beside Goth. *tēkan* (pf. *taitōk*) 'to touch'. In other cases *a*, in forms from *ē-* and *ō-*roots, took the timbre *ε* and *ο* after the analogy of forms with *η* and *ω*: *θε-τό-ς* fr. *θη-* 'set', *ἐ-τό-ς* = Lat. *sa-tu-s* fr. *ή-* 'throw', *σύν-δε-το-ς* cp. Skr. *sá-di-ta-s* fr. *δη-* 'bind', *μέ-τρο-ν* fr. *μη-* 'measure' (Lat. *mē-tior*), *δο-τό-ς* = Lat. *da-tu-s* fr. *δω-* 'give' *πο-τό-ν* 'beverage' fr. *πω-* and others. Cp. *ορ, ολ* for regular *αρ, αλ* = Indg. *ʒr, ʒl* after the analogy of *ορ ρω, ολ λω* = Indg. *ʒ ʒ* in *ἔ-πορ-ο-ν* etc. § 306.

Rem. Fick's hypothesis (Bezzenberger's Beitr. IX 313 ff.) that the vowel triad *a, ε, ο* in *στα-τό-ς, θε-τό-ς, δο-τό-ς* is a continuation of three different prim. Indg. vowels, is not at all convincing.

d. Italic. Lat. *pa-ter*, Umbr. *Iu-pa-ter* 'Juppiter' Iuve *pa-tre* 'Jovi', Osc. *pa-tír*: Gr. *πα-τήρ*. Lat. *sta-bulu-m*, Umbr., *sta-flarem* 'stabularem', Osc. *Anter-sta-tai* dat. '*Inter-stitae', Volsc. *sta-to-m* 'statutum, consecratum', fr. rt. *sta-*. Lat. *da-mus* *da-tu-s*, Falisc. *da-tu* 'datum', Vest. *da-ta* abl. 'data', fr. rt. *dō-*.

Lat. *sa-tu-s* fr. rt. *sē-* 'sow' in *sē-men*. *spa-tiu-m* 'space' fr. rt. *spē(ī)-* 'extend' in *spē-s*, Lith. *spē-ti* 'to be at leisure, to be quick enough', O.Bulg. *spē-ti* 'to progress, have success'. *lassu-s* 'weary, tired': Goth. *lats* 'weary, idle', fr. rt. *lēd-* in Goth. *lēta* 'I let, leave'. Lat. *ca-tu-s* 'sharp' beside *cōs cōtis* 'whetstone'.

For the treatment of Lat. *a* in syllables which, according to prim. Lat. accentuation, were unaccented, e. g. *Juppiter*, s. § 97.

e. Old Irish. *a-thir* 'father': Gr. *πα-τήρ*. *sa-thech* 'satiated': Lat. *sa-tur*, Gr. *ἄ-δην* 'abundantly', Skr. *a-si-nv-ā-* 'insatiable'.

The form *-airissid*, 2. pl. of *-airissim* 'I stand, stand still' fr. rt. *stā-*, probably may not be traced back to **(pari-)si-sta-te* and directly be placed equal to Gr. *ἵ-στα-τε*, as can be the case with Lat. *sisti-te* = *ἵστα-τε* (§ 97 p. 91), since the form **-airessid* with the influence of the *a* on the preceding syllable would be expected; cp. also 1. sg. *-airissiur*, which points to **sistijō*.

f. Germanic. Goth. *fa-dar* OHG. *fa-ter* O.Icel. *fa-ðer* *fa-ðir* 'father': Gr. *πα-τήρ*. Goth. *sta-þs* (st. *stadi-*) OHG. *sta-t* (gen. *steti*) OS. *sta-d* (gen. *stedi*) 'place': Gr. *στά-σι-ς*, Skr. *sthi-ti-ṣ*; OHG. *stara-blint* O.Icel. *star-blindr* 'blind with a cataract', Mod.HG. *starr* 'stiff': Skr. *sthi-rā-s* 'fast, immovable', rt. *stā-*. Goth. *ra-þjō* OHG. *re-dia* 'account': Lat. *ra-tiō*, rt. *rē-* (Lat. *rē-ri*). OHG. *slaf* Low Germ. *slap* 'slack' to Goth. *slēpan* 'to sleep'. Ags. *snear* 'snare, cord, string' O.Icel. *snara* 'cord', rt. *snē-* 'bind, spin'. OHG. *blat* OS. *blad* O.Icel. *blað* 'leaf', orig. part. 'blossomed', rt. *bhlē-* 'swell, bloom'.

For the treatment of *a* in OHG. (e. g. gen. *steti* to nom. *stat*) s. § 83.

g. Baltic-Slavonic. Lith. *sta-taũ* 'I place', *stā-klės* pl. 'loom', O.Bulg. *sto-jā* 'I stand', fr. rt. *stā-*. Lith. part. pf. act. *dā-ves* to inf. *dū'-ti* 'to give', fr. rt. *dō-*. O.Bulg. *spo-rũ* 'plentiful': Skr. *sphi-rā-* 'large, plentiful', to *spējā* 'I have success': Skr. *sphāyāmi* 'I thrive'. O.Bulg. *dojā* 'I suckle': Goth. *daddja*, Skr. *dhāyāmi*, fr. rt. *dhē(ī)-* 'suck'.

§ 110. In prim. Indg. *a* was frequently spoken directly after the root syllable. Some regard this *a* as forming a fixed part of the root and speak of dissyllabic roots; whether rightly (cp. p. 17), or not is here a matter of indifference.

The forms, which the vowel in this case assumes in Lat. and O.Ir., are explained by the laws which hold good for unaccented syllables in these languages, cp. §§ 97. 98.

In Greek it appears as *α*, *ε*, *ο*. A still closer investigation is needed to determine on what the various timbre in this

case depends. The explanations hitherto attempted are unsatisfactory.

Skr. *duh-i-tár-*, Gr. *θυγ-ά-τηρ* beside Av. *dug'dar- duydar-* Goth. *daúhtar* Lith. *duktė* 'daughter'. Cp. Bartholomae Kuhn's Ztschr. XXVII p. 206 f., and von Fierlinger in the same vol. p. 478.

Skr. *dam-i-tá-* 'tamed' *dam-i-tár-* 'tamer', Gr. *ἀ-δάμ-α-το-ς* 'unsubdued' *παν-δαμ-ά-τωρ* 'all-subduer', Lat. *dom-i-tu-s dom-i-tor*. Skr. *vam-i-ta-* Gr. *ἐμ-ε-τό-ς* Lat. *vomi-tu-s* 'vomited'.

Skr. *jan-i-tár-* Gr. *γεν-ε-τήρ* *γεν-έ-τωρ* Lat. *gen-i-tor* 'begetter', Lat. *gen-e-trīx*. Lat. *mer-i-tōr-iu-s mer-e-trīx, mol-i-tor mol-e-trīna*.

Skr. *bhar-i-tra-m* 'arm, that with which one carries' (fr. *bhar-* 'carry, bear'), Gr. *φέρ-ε-τρο-ν* 'bier, litter', Lat. *prae-fer-i-culu-m* 'offering-cup' (as implement, to bear something before one self). Skr. *ar-i-tra-s* 'oar' (cp. *ar-i-tár-* 'rower', Gr. *ἑρ-ί-της ἑρ-ί-τρο-ια*), *khan-i-tra-m* 'shovel'. O.Ir. *cenēl cenel* 'sex, race' = O.Cymr. *cenetl* fr. **ken-e-tlo-n*; *scēl* 'story, tidings' = Cymr. *chwedl* fr. **skye-tlo-n* (Cymr. *chwedl* fr. **suetl*, cp. §§ 175. 573) fr. rt. *seq-* 'say', O.Ir. *ē* through compensation lengthening (§ 518); cp. Zimmer Kelt. Stud. II 7. 142 f., Thurneysen Rev. Celt. VI 324 f.

Gr. *ἄν-ε-μο-ς* 'wind', Lat. *an-i-mu-s*, cp. Skr. 3. sg. *án-i-ti* 'breathes, gapes'. Skr. *ján-i-man-* 'birth' *var-i-mán-* 'extent, distance'. Gr. *τερ-ά-μων* 'becoming soft by boiling' *ἀ-τέρ-α-μν-ο-ς* 'indigestible, hard', *τελ-α-μών* 'shoulder-belt'. Lat. *reg-i-men, mon-u-mentu-m, col-u-men, col-u-mn-a*. O.Ir. *anim*, dat. *anmain*, 'soul' (cp. Lat. *anima*), *menme*, dat. *menmain* 'sense' (prim. f. **men-a-men-*).

Skr. *kraviṣ-* 'raw meat', Gr. *κρέας*, cpf. **greuṣ-*; Skr. *śōctiṣ-* 'flame', Gr. *γῆρας* 'old age'.

Skr. *tan-i-ṣyāmi* 1. sg. fut. act. fr. *tan-* 'stretch, extend', *vēd-i-ṣyāmi* fr. *vid-* 'know', *vart-i-ṣyē* 1. sg. fut. mid. fr. *vart-* 'turn'. *āvēd-i-ṣam* 1. sg. aor. fr. *vid-* (cp. also *vēd-i-tum* inf., *vēd-i-tar-* 'knower'), *áyās-i-ṣam* fr. *yā-* 'go'. Gr. fut. *τεν-έ-ω* *τενώ* (*τείνω* 'I stretch'), *κρεμ-ά-ω* *κρεμῶ* fr. the verbal stem *κρεμα-* 'hang

up' (cp. *κρεμ-ά-θρα* 'a basket to hang things up in'), Hom. *ὀμοῦμαι* fr. *ὀμ-ό-ουαι* fr. the verbal st. *ὀμ-ο-* 'swear' (cp. *ὀμ-ό-της* 'swearer'). Plusquamperf. *ᾔδ-ε-α*, opt. pf. *εἶδ-ε-ίην*, opt. aor. *δεῖξ-ε-ιαν*. Lat. fut. pf. *vīd-e-rō* (= Gr. *εἶδ-έ-ω*) *dīx-e-rō*, conj. pf. *vīd-e-rīmus* (= Gr. *εἶδ-ε-ῖμεν*) *dīx-e-rīmus*. Here perhaps belong also the Slav. aor. in *-o-chŭ*, e. g. 1. sg. *nes-o-chŭ*, 2. pl. *nes-o-ste* from *nesq* 'I carry'.

Pres. Skr. *vām-i-mi* 'I vomit', *rōd-i-mi* 'I lament, weep'. Gr. *κρέμ-α-μαι* 'I hang'; *ἐμείω* 'I vomit' is probably a transformation of **fēm-ε-μι* = Skr. *vām-i-mi*. Lat. *vom-i-s*, *vom-i-t* (cp. Skr. *vām-i-ṣi*, *vam-i-ti*) may be forms of this class, which, being associated with *legis legit* and the like, was the cause of their passing into the *ō*-conjugation; here probably belongs also *vol-u-mus* (*s-u-mus* a new formation, after which 1. sg. *s-u-m*).

It also seems necessary to assume Indg. *ə* in certain flexional syllables. Nom. acc. pl. neut. Skr. *bhārant-i* Gr. *φέρωντ-α* = Indg. **bhéront-ə*, part. pres. fr. rt. *bher-* 'bear'; cp. on the other hand voc. Skr. *ám̐ba*, Gr. *ρύμ̐α*, O.Bulg. *ženo* with Indg. *-a* §§ 93. 94. Are the personal endings Skr. *-mahī* and Gr. *-μεθα* (1. pl. impf. mid. Skr. *ábharā-mahī*, Gr. *ἐφερόμεθα*) to be traced back to an Indg. **-medhə*?

Vowel contraction in the indg. primitive period.

§ 111. The Indg. long vowels and *i̯*- and *u̯*-diphthongs, whose regular representation in the individual branches of languages has been exhibited in §§ 28—108, were not, as may with probability be assumed from an etymological analysis of word-forms, originally monosyllabic, but first became so by contraction.

Rem. As regards the putting down of pre-historic forms we follow this principle: where by analysis a form can be deduced as being originally dissyllabic, and all languages concurrently exhibit it as monosyllabic, we regard the contraction as having already taken place in the prim. Indg. period, e. g. the pf. stem *ēd-* (rt. *ed-* 'eat', Lat. *ēd-imus* etc.) which, after the analogy of perfect stem forms whose root begins with a consonant, is to be resolved into an older *e-ed-*¹).

1) Since it is here only a question of the formative-type in general, it is immaterial whether this very example belongs to the oldest of its

Observe further: when an isolated form in a single language presents two vowels directly coming in contact with each other (but neither arising from the meeting together of two stems or words, nor due to the elision of a consonantal element which originally stood between the vowels), of which the first is an *a-*, *e-*, or *o-* vowel, it is never, so far as can be seen, the regular continuation of a prim. Indg. form with uncontracted vowels, but always a new formation. Here belong, e. g. the Homeric conjunctive forms *θήομεν*, *παροΐετον* etc. and Goth. 1. sg. pf. *aiðuk* (*aiukan* 'to add, augment'). Cp. also § 600.

The following are examples of forms which became monosyllabic in the Indg. prim. period. They, of course, all rest upon etymological analyses only and their hypothetical character should not be mistaken.

§ 112. I. Contraction of *a-*, *e-*, *o-*vowels with *a-*, *e-*, *o-*vowels.

The product of the contraction was everywhere *ā*, *ē*, or *ō*. When the two vowels differed in quality, the product regulated itself after the quality of the first. Cp. Osthoff Morph. Unt. II 113 ff., Zur Gesch. d. Perf. 123 ff., Bremer in Paul-Braune's Beitr. XI 264 ff.

§ 113. I. *ā* arose from:

ā + a. Dat. sg. fem. **ekyāi* fr. **ekyā-aī* or **ekya-aī* (**ekya* 'mare': Skr. *āśva*, Lat. *equa*): Skr. Ved. *-aī*, Gr. *-ā*, O.Lat. *-a*, Goth. *-ái*, O.Bulg. *-ē*. Instr. sg. fem. **ekyā* fr. **ekyā-a* or **ekya-a*: Skr. Ved. *-ā*, Gr. *-ā* (Att. *δημοσίā*, *πῆ*, Ion. *χορυγῆ*), Lat. *-a* (*frustra*).

ā + e. Nom. pl. fem. **ekyās* fr. **ekyā-es*: Skr. *-ās*, Umbr. Osc. *-ās*, Goth. *-ōs*, Lith. *-ōs*. Conjunctive stems in *-ā-* fr. *-ā-e-*, e. g. **stā-* fr. **stā-e-* (rt. *stā-* 'stand'), e. g. Skr. 3. sg. act. *sthāti*, Gr. Arcad. 3. sg. mid. *ἵσταται*.

ā + o. Conjunctive stems in *-ā-* fr. *-ā-o-*, e. g. Skr. Ved. 1. pl. *yundāma* (1. sg. ind. *yu-nā-mi* 'I bind to'), Gr. Dor. *δύ-νā-μαι* (Att. *δύνωμαι* is a new formation).

kind, and accordingly a dissyllabic *e-ed-* as predecessor of *ēd-* was once really spoken, or whether *ēd-* first made its appearance after the termination of the process of contraction and on coming into existence took its *ē* after the analogy of other perfect stems.

Rem. The Indg. nom. acc. pl. neut. **jugā* (Skr. Ved. *yugā*, Lat. *juga*) fr. stem **jugo-* presents difficulties. If *a* (or *ā*) was the case suffix: why not **jugō* or **jugē*? If Osthoff is right (Zur Gesch. d. Perf. 123 f.) that the product of contraction only assumed the quality of the first vowel, when the second did not contain the chief accent of the word, one might think of an older **jugo-ā* or *juge-ā* (respec. *-ā*). But it is equally possible that Indg. **jugā* is to be looked upon as **jug-ā*, i. e. the stem forming suffix was dropped before the case ending (tonlose tiefstufe, 'unaccented weak grade' § 311).

§ 114. 2. *ē* arose from:

e + a. Perfect stem **ēg-* fr. **e-ag-* (fr. rt. *ag-* 'drive, lead'): 1. pl. Lat. *ēg-imus* Skr. *āj-imā*. Instr. sg. of *-o*-stems, e. g. **qē* fr. stem **qo-* 'who', Gr. Lacon. *πῆ-πονα* 'usquam' or 'unquam', Goth. *hvē*: Skr. instr. in *-ā* can equally as well be placed here as to the form in Indg. *-ō* fr. *-o-a*. (§ 115).

ē + e. Perfect stem **ēd-* fr. **e-ed-* (rt. *ed-* 'eat'): Lat. 1. pl. *ēd-imus*, Goth. 1. pl. *ēt-um*, Lith. part. masc. *ēd-es* fem. *ēd-us-i*, O.Bulg. part. masc. *jad-ŭ* fem. *jad-ŭši*, Skr. 1. pl. *ad-inā*, Gr. part. *ἔδ-ηδ-ώς* for older **ἦδ-ώς*. Conjunctive stems in *-ē-* fr. *-ē-e*, **dhē-* fr. **dhē-e-* (rt. *dhē-* 'place'), e. g. Skr. Ved. 3. sg. *dhāti*, prim. Gr. **θῆτι*. 1. sg. impf. **ēs-η* 'eram' fr. **é-es-η* (rt. *es-* 'esse'): Skr. *ās-am*, Gr. Hom. *ῆα*, Att. *ῆ*.

ē + o. Conjunctive stems in *-ē-* fr. *-ē-o-*, **dhē-* fr. **dhē-o-*, Gr. Messen. *πο-τίθητι*, Skr. Ved. **dhānti*.

§ 115. 3. *ō* arose from:

o + a. Dat. sg. masc. **ekūōi* fr. **ekūo-ai* (**ekūo-s* 'horse' = Skr. *áśva-s*, Lat. *equo-s*): Av. *-āi*, Gr. *-ω*, Lat. *-ō*, Osc. *-úí*. Instr. sg. of the same class of stems in *-ō* fr. *-o-a*: Lat. *-o* (*modo*, *cito*), Gr. *-ω* (since a number of adverbs in *-ω -ω-ς* are probably instrumentals, not ablatives), O.Ir. *-u* (*cēliu* fr. *cēle* 'comrade'), OHG. *-u*, Lith. *-ù* (*gerù* fr. **gerŭ*, as *gerŭ-ju* shows, s. § 664, 3); the Skr. instrumentals in *-ā* can equally as well belong here as to the form in Indg. *-ē* fr. *-e-a* (§ 114).

ō + e. Nom. pl. **ekūōs* fr. **ekūo-es*: Skr. *-ās*, Umbr. Osc. *-ōs*, Goth. *-ōs*, O.Ir. voc. pl. *a fīru* 'o viri' fr. **uirōs* (§ 90). Conjunctive stems in *-ō-* fr. *-ō-e*, **dō-* fr. **dō-e-* (rt. *dō-* 'give'), e. g. Skr. Ved. 3. sg. *dāti*, prim. Gr. **δῶτι*. 3. sg. indic. pf. of roots in

-ō, e. g. Skr. Ved. *dadā* 'dedit' fr. Indg. **dedō* fr. **de-dō-e*, Goth. *saísō* 'sevit' for regular **saísa* (§ 660, 2) fr. Indg. **sesō* fr. *se-sō-e* from rt. *sē-* 'sow'.

o + o. Gen. pl. **ekūōm* fr. **ekyo-om*: Ar. -*ām*, Gr. -*ων*, Lat. -*um*, OHG. -*o*, Lith. -*ū*.

o + a² (i. e. it cannot be determined whether the second vowel was *a*, *e* or *o*). Abl. sg. **ekūōd* fr. **ekyo-a²d*: Gr. -*ω* (Locr. Cret. *ō* Locr. *ōπω* 'unde'), Lat. -*ōd*¹). Instr. pl. **ekūōis* fr. **ekyo-a²is*: Skr. -*āiṣ*, Gr. -*οις* (§ 611), Lat. -*oes -īs* (§ 612), Lith. -*ais* (§ 615). 1. sg. pres. act. **bherō* (Gr. *φέρω*, Lat. *ferō*) fr. **bhero-a²*: Ar. -*ā*, Gr. -*ω*, Lat. -*ō*, O.Ir. -*u* (no *raidiu* 'I speak'), Goth. -*a*, Lith. -*ù* (*sukù* 'I turn' fr. **sukū*, cp. the refl. *sukū-si* 'I turn myself', § 664, 3). The nom. acc. du. of *o*-stems in -*ōu* perhaps also belong here (whence -*ō* before consonants in prim. Indg. § 645, 1), e. g. **duōu*: Skr. *dvaú* O.Ir. *dau dō* 'two' (§ 85).

§ 116. II. Contraction of *a*-, *e*-, *o*-vowels with *i*- and *u*-vowels.

eī fr. *e + i*, *oi* fr. *o + i*. Loc. sg. of *o*-stems partly in -*eī*, Gr. -*ει*, Osc. -*ei*, partly in -*oi*, Gr. -*οι*, OHG. -*e* O.Bulg. -*ě* (compare however § 84 rem. 3).

ai, *oi* fr. *a + i*, *o + i*. Weak form of the opt. of roots in -*ā*, -*ē*, -*ō*. **stāi-* fr. **stā-i-* (rt. *stā-* 'stand'): Gr. *σταῖμεν*, Skr. **sthēma*, instead of which *sthēyāma* was formed after analogy of the sg. *sthēyām* (for regular **sthayām*). **dhāi-* fr. **dhā-i-* (rt. *dhā-* 'place'): Gr. *θαῖμεν* instead of **θαῖμεν* (cp. § 109 c.), Skr. *dhēyāma* instead of **dhēma* after the sg. *dhēyām*. **dāi-* from **dā-i-* (rt. *dā-* 'give'): Gr. *δοῖμεν* instead of **δοῖμεν* (cp. loc. cit.) Skr. *dēyāma* instead of **dēma* after the sg. *dēyām*. Cp. § 109 a. Opt. tenses with thematic vowel, e. g. **bheroi-* fr. **bhero-i-* (rt. *bher-* 'bear'): Skr. *bhārēṣ*, Gr. *φέρους* etc.

1) Skr. *mā-d*, *tvā-d*, *asmā-d* permit the assumption that in the abl. sg. -*a²d* and -*d* stood beside each other in the same manner as -*es*, -*os* and -*s* in the gen. sg. Lith. *vilko* and Slav. *vlūka* 'wolf's', whose ending is to be traced back to an orig. form with *ā* on account of Lith. *ō* (§ 108), can only stand in an indirect relation to Lat. -*ōd* and Gr. -*ω*; they are a problem of a similar nature as Indg. **jugā* 'iuga' (§ 113 rem.).

For Gr. *γνοι-* in the Opt. *γνοῖμεν* (indic. *ἐγνων ἐγνωμεν*), which goes back to **γνω-*, a prim. Indg. form **gnō-* fr. **gnō-* must apparently be assumed. In like manner also for Gr. *πλιῖστος* O.Icel. *flester* (fr. **fleistr*) *fleire* an Indg. **plēis-* fr. **plē-is-*. See §§ 611. 614.

B. THE VOWELS AS CONSONANTS.

§ 117. Of the vowels ascribed to the prim. language there were two, *i* and *u*, which were employed both as sonants (*i*, *u*) and as consonants (*i*, *u*).

It is not possible in every case to draw a sharp line between Indg. *i*, *u* and the Indg. spirants *j*, *v*. (§§ 554. 598).

i, *u* can everywhere be assumed with certainty, where they correspond to an *i* and *u* of other forms of the same form-system, or stand in ablaut relation to *i* and *u*. 3. pl. **i-ḥti* (Skr. *y-ānti*) beside 2. pl. **i-té* (Skr. *i-thā*) fr. rt. *eḡ-* 'go'. 3. pl. **qi-nu-ḥti* (Skr. *ci-nv-ānti*) beside 2. pl. **qi-nu-té* (Skr. *ci-nu-thā*) fr. rt. *qeḡ-* 'to set in rows'. Nominal suffix *-iḡ-* beside *-i(i)ḡ-*, as **medhḡ-* (Skr. *mādhya-s* Gr. Hom. *μέσσης* fr. **meθḡ-* 'medius') beside **patri(i)ḡ-* (Skr. *pītriya-s* Gr. *πάτριος* 'patrius'). **duḡ* 'two' (Skr. ved. *dvā*, Gr. *δ(φ)ῶ-δεκα*) beside **du(u)ḡ* (Skr. Ved. *duvā*, Gr. *δύω*). Nom. pl. **treḡ-es* 'tres' (Skr. *tráy-as*) beside loc. pl. **tri-su* (Skr. *tri-śú*). Nom. sg. **diḡu-s* 'sky' (Skr. *dyāu-ḡ*, Gr. *Ζεύς*) and loc. sg. **diu-i* (Skr. *div-i*, Gr. *Δι-ι*). Root form **suep-* or **suop-* in Skr. *sváp-na-s* 'sleep, dream' beside **sup-* in Skr. part. *sup-tá-s*, Gr. *ὑπ-vo-ς*.

Where *i* and *u* were missing from Indg. times in formations which properly should have weak grade, the probability is for *j*, *v*. E. g. the participles Skr. *tyaktá-s*, Gr. *σεντρό-ς* exhibit the rt. *tjeg-*, not *tiḡ-* ('step back from something', hence in Gr. 'to be timid, to honour with pious awe'), since from *tiḡ-* the form **tiqtó-s* would have to be expected. Skr. *śétē* Gr. *κῆται* 'lies' permits the assumption of the rt. *kej-*. Rt. *ves-* 'clothe', not *ues-*, on account of Skr. pf. mid. *va-vas-ē*, etc. Cp. § 307 ff.

In Greek initial *ζ* and 'decide whether we have to do with *j-* or *i-*', e. g. *ζέω* 'I see' fr. rt. *jēs-*, *ζυγόν* 'yoke' fr.

rt. *jēug-*, but ἅγιο-ς 'holy' fr. rt. *iāg-*, ὑμεῖς 'vos' fr. st. **iū-sme-* (Skr. *yū-ṣma-*).

In every case where the spirantal value of the sound can not be determined with certainty, or with great probability, we write the Indg. orig. forms in this work with *i*, *u*.

In most Indg. languages *i* and *u*, in dissyllabic vowel combinations as *ia*, *ua*, were spoken as glides: *iā*, *uā*. This sound must have existed also in the Indg. unitary period. We assume therefore e. g. **patr-iō-s* and **duuō* as the Indg. orig. forms of Lat. *patrius*, *duō* etc. Cp. Sievers *Phonetik*³ 146, Osthoff *Morph. Unt.* IV 398 ff. Analogously *i* and *u* also before nasal and liquid sonants, e. g. **siṭ-ṇt* = O.Lat. *sient* (*sint*) fr. rt. *es-* 'be', **é-kliṭ-ṇt* = Skr. *ásriyan* and **ke-kliṭ-ṇtáṭi* = Gr. Hom. *κεκλιυται* fr. rt. *klei-* 'lean against'. *i* and *u* in this case corresponded to the *r* in **is-rro-* (Skr. *iṣirá-s*, Gr. Corc. *ιαρός*) and to the *n* in **tṛn-u-* (Skr. *tanú-ṣ*, Lat. *tenu-i-s*) etc., s. §§ 223, 4. 284, 3.

Indg. *i*.

Prim. Indg. period.

§ 118. Initial *i* only before sonants. Pronominal stem **iū-* (**iū-sme-*) 'ye, vos': Skr. nom. *yūyám* Abl. *yūṣmád*, Arm. *je-r* 'your', Gr. ὑμεῖς 'ye', Goth. *jus* 'ye', Lith. *jūs* 'ye'. Skr. *yá-ti* 'goes', Av. *jār* n. 'year', Gr. ὥρο-ς 'year' ὥρα 'time', Lat. *janua* 'entrance, door', Goth. *jēr* 'year', Lith. *jó-ju* 'I ride' O.Bulg. *jadaq* 'I drive, ride', *jarū* m. *jara* f. 'spring'. Skr. *yánti* fr. Indg. **i-ṇti* (3. pl. of **éṭ-mi* 'I go').

§ 119. Intersonantal. 1. sg. **uēi-ō*: Skr. *váy-a-mi* 'I weave', Lith. *vej-ù* O.Bulg. *vějā vija* (§ 68) 'I turn, wind'. Nom. pl. in *-ei-es* from *ei-*stems, e. g. **tréi-es* 'three': Skr. *tráyas*, Gr. *τρεις* fr. **trē(ι)ς*, Lat. *trēs* fr. **tre(i)es*, Goth. *þreis* fr. **pri(i)z* (§§ 67. 660, 1), O.Bulg. *trěje trije* (§ 68). Causat. in *-éiō*, e. g. Skr. *tarṣáyāmi* 'I let thirst, languish', Lat. *torreō* 'I make dry, parch', etc. Skr. *sphāya-tē* 'increases, grows', Lith. *spėjū* 'I am at leisure', O.Bulg. *spějā* 'I have success'. Lith. *pa-stóju* 'I become something', Lat. *stō*, O.Ir. *-taū* 'am' fr. **stā-iō*.

Derivative verbs as Skr. *pṛtanā-yā-mi* 'I fight' fr. *pṛtanā-* 'fight', *miśra-yā-mi* 'I mix' fr. *miśrā-* 'mixed', Gr. *τιμῶ* fr. **τιμᾶ-ω* fr. (Dor.) *τιμά* 'esteem', *φιλῶ* fr. **φιλε-ω* fr. st. *φίλε- φίλο-* 'amicus', Lith. *pāsaiko-jū* 'I narrate' fr. *pāsaka* 'narration', O.Bulg. *lāka-jā* 'I deceive' fr. *lāka* 'craft', etc.

Present stem **mṛ-je-* fr. rt. *men-*: Skr. *mānyatē* 'means', Lith. *miniū* O.Bulg. *mīnjā* 'I think'. Derivatives as Skr. *udan-yā-ti* 'streams from' fr. prim. Ar. **udṛ-īā-ti*, Gr. *τεκταίνω* fr. **τεκτε-ω*, Goth. *glitmunja* 'I shine' fr. prim. Germ. **glitmṛ-iō* (§§ 223, 2. 225).

Present stem **mṛ-je-* fr. rt. *mer-* 'die': Av. *mer'yēiti*, Lat. *morior*; Gr. *σπαρω* 'I struggle convulsively', Lith. *spiriū* 'I push with the foot', cpf. **spṛ-iō* (§§ 284, 2. 286).

i as glide after *i*. For examples see §§ 117. 120.

§ 120. Postconsonantal. Stem forms **diēu-*, **diēu-*, **diu-* 'sky': Skr. nom. sg. *dyāuś* acc. sg. *dyām* (§ 188) instr. pl. *dyū-bhiṣ*, Gr. *Ζεύς* fr. **διευς* **διηυς* (§ 611), *Ζῆν* (cp. § 188), Lat. *Jov-* in *Jovis* Osc. Iuv-eí Umbr. Iuv-e 'Jovi' fr. **diēu-* (§ 65). Root form *siū-* 'sew': Skr. part. *syū-tā-s*, OHG. *siut* m. 'seam' *siu-la* 'awl', Lith. part. *siū-ta-s*, *siū-la-s* 'linen-thread', O.Bulg. part. *šitū* fr. **siy-tū*, *šilo* n. 'awl' fr. **siy-lo*. Stem **medhio-* 'medius': Skr. *mādhyā-s*, Gr. *μέσσο-ς μέσος*, Goth. *midjis*, O.Bulg. fem. *mežda* 'boundary' fr. **medīā*. Presents in *-iō*, e. g. **uṣḡ-iō* fr. rt. *uṣḡ-* 'work, effect': Av. *ver'zyēmi*, Gr. *ῥέζω* for regular **ῥαζω* (*ε* for *α* after *ῥξω*, *ῥδω* etc.) fr. **Fṛay-ω*, Goth. *vaurk-ja* (§ 299).

Postconsonantal *i* often interchanged with *iī* in prim. Indg. (in the same manner as *u*, *n*, *m*, *r*, *l* with *uu*, *nn*, *mm*, *rr*, *ll*, §§ 153. 227. 287). A formative element assumed various shapes not only in different words, e. g. suffix form *-iio-* in **patr-iio-* (Skr. *pitrīya-s* Gr. *πάτριος* Lat. *patriu-s*) beside *-io-* in **medh-iio-* (Skr. *mādhyā-s* etc., s. above), but also in the same words, e. g. stem forms **diēu-* **diēu-* (Skr. nom. *dyāuś* acc. *dyām*, Lat. *Diov-e* Osc. *Diuv-eí* *Διουφεi* 'Jovi', Lat. *diem*) beside **diēu-* **diēu-* (Skr. *dyāuś* etc.). In this change it is a question of a difference of ablaut-grade, e. g. **giī-ā* (Lith. *gijė* 'thread', Gr.

βίος 'bow' for older **βιᾱ*, s. Osthoff Morph. Unt. IV 188) represents the secondary accented (nebentonige) weakgrade form, but **gī-ā* (Skr. *jyā* 'bow-string') the unaccented (tonlose); cp. §§ 307 ff. and 670.

We shall here confine ourselves to cases in which no ablaut (the opposite of weak and strong grade) can be determined. From the investigations hitherto made concerning the origin of the double forms *i* and *ii* (s. especially Sievers in Paul and Braune's Beitr. V 129 ff., Hübschmann Kuhn's Ztschr. XXIV 362 ff., Osthoff Morph. Unt. IV 353 ff., Zur Gesch. d. Perf. 421 ff.) the following may be given as probable:

After initial consonants the change depended on the nature of the final syllable of the preceding word. In the parent language they may have spoken **só sīēt* = Skr. *sá syāt* 'he may be', but **tód sīēt* = Skr. *tát siyāt* 'that may be' (cp. also Goth. 1. sg. *s-ijáu*). Double forms may also here be shown as pres. st. **mr-īé-* = Av. *mer'ye-iti* Lat. *morio-r* beside **mr-iié-* = Skr. *mriyá-tē*, Opt. st. **bhu-īē-* = Av. 3. sg. *bu-yā-ḥ*, Gr. Cypr. *φύ-ιη* beside **bhu-iiē-* = O.Pers. 3. sg. *b-iyā* fr. rt. *bhey-* 'be, become' (cp. Osthoff Zur Gesch. d. Perf. 426 ff.). **tód mrietai* 'that dies' possibly stood originally beside **só mrietai* 'he dies', impf. **é mrieto*.

i was used medially after short syllables, *ii* after long, especially after consonant groups. This is seen most clearly by the suffix *-iō-*. Cp. on the one hand **medh-iō-* 'medius' (s. above); **al-iō-* 'alius' = Arm. *aíl* Gr. *ἄλλο-ς* O.Ir. *aile* Goth. *alji-s*; and on the other **pātr-iō-* 'patrius' (s. above); **ekm-iō-* 'equinus' = Skr. *áśviya-s* Gr. *ἵππιος-ς*; **ghesl-iō-* (deriv. of **gheslo-* 'thousand') = Skr. *sa-hasriya-* 'thousand-fold', Gr. Lesb. *χέλλιοι* 'thousand'; **mort-iō-* = Skr. *á-martiya-* 'immortal', Gr. *ἀ-μβρόσιο-ς* (*βροτός* for *μορτός-ς* through the influence of **βρωτός-ς* = Skr. *mr̥tá-s* 'mortuus'); **nept-iō-s* = Av. *naptiya-* 'relation', Gr. *ἀνεψιός-ς* 'first cousin', O.Bulg. *netijǎ* 'first cousin' (*-ij-* fr. *-ǎj-* § 36); **nām-iō-* = Skr. *nāviya-* 'navigable', Gr. *ναίος-ς* *νήιος-ς* 'belonging to a ship'; also especially the established difference in Goth., e. g.

between gen. sg. *harjis* (*harja*- 'army') and *haírdeis* (*haírdja*- 'shepherd'), cp. § 84 rem 1.

It may be presumed that regular forms occasionally suffered interruption in their development already in prim. Indg. through analogy. This certainly frequently took place in the separate developments of the orig. language, as e. g. Skr. Ved. *gáv-ya-* (beside *gáv-ya-*) 'bovarius' after such forms as *áśviya-*, Gr. Dor. -*κάτιοι* Arcad. -*κάσιοι* (*διᾱ-κάτιοι* 'two hundred' etc., cp. Skr. -*śatya* 'consisting of a hundred') after *χίλλιοι* (*χίλιοι*). But, besides this, *i* fr. *i* arose in Aryan (§ 125) and Lat. (§ 135) by regular development.

§ 121. Anteconsonantal. *i* only occurred in this position after *a*-, *e*- and *o*-vowels, with which it formed 'diphthongs', e. g. 3. sg. **uóid-e* 'knows': Skr. *védā*, Gr. *Foĩde*, Goth. *váiit*. For the fate of *i* in these combinations cp. §§ 61—108 and § 150.

§ 122. Finally. *i* only occurred finally as the second component of diphthongs, cp. nom. pl. **tói* 'the' = Skr. *tē* Gr. Hom. *τοί* etc., dat. sg. in -*ai* of *a*-stems (§ 101 extr.). The treatment in the individual languages was generally the same as before consonants, cp. e. g. Skr. *tē* with *védā* (= Gr. *Foĩde*).

When conditionally final (in the body of a sentence), *i* also stood after consonants, e. g. Indg. **proti ebherom* may be assumed for Skr. *praty-abharam* Gr. *προς-εφερον* 'I brought forward'. Cp. § 645 finals 2.

Aryan.

§ 123. Initially. Pronominal stem Skr. Av. O.Pers. *ya-* 'which' (in Iran. also demonstr.), nom. acc. neut. Skr. *ya-d* Av. *ya-p*, Skr. *yá-tha* Av. *ya-pa* O.Pers. *ya-pa* 'how': Gr. *ῥ-ς* 'qui' *ὁ* 'quod', Goth. *jáins* 'that' (either to Lith. *ji-* in *ji-s*, § 84 rem. 1 or according to Lidén Arkiv f. Nord. fil. III 242 from Indg. loc. **ioi*, formed like Gr. *ἐκεῖ-νο-ς* fr. *ἐκεῖ*), *ja-bái* 'if', acc. sg. fem. Lith. *jā* O.Bulg. *ja* 'eam' (= Skr. *yā-m*, Gr. *ἄν*, *ἦν*). Skr. *yájati* Av. *yazaitē* 'honours', Skr. *yájas-* n. 'veneration':

Gr. *ἄζομαι* 'I honour, stand in pious awe of' fr. **ἄζομαι* (§ 131), *ἄγος* n. 'veneration'.

The difference between initial Indg. *i*- and *j*- is still seen in Skr. ptc. *iṣṭá-* fr. *yaj-* 'honour' (Gr. *ἄγιο-ς*) and *yas-tá* fr. *yas-* 'bubble, seethe' (Gr. *ζέω*) and similar forms. See §§ 117. 318. 598.

§ 124. Intersonantal. Skr. *a-vay-a-ti* 'drives on, leads to' *pra-vay-aṇa-m* 'drover's goad', Av. *vay-ēti* 'drives, scares': Lith. *vej-ù* 'I persecute', O.Bulg. *voj-ī* 'warrior'. 1. sg. Skr. *dhārāyāmi* Av. *dārayēmi* O.Pers. *dārayāmīy* (read *-mī*) 'I hold, keep', Indg. ending of the 1. sg. **-eṭō*. Nom. pl. Skr. *gir-āy-as* Av. *gar-ay-ō* 'mountains' (Nom. sg. Skr. *giri-ś* Av. *gairi-ś*, cpf. **qrr-i-s*, § 290).

1. sg. impf. Skr. *āyam* O.Pers. *ayam* (read *āyam*) 'I went' = Indg. **ēṭ(m)*, cp. Gr. *ἦα* for **ḥα* (§ 130), fr. rt. *ei-*. Opt. 3. sg. Skr. *hanyāt* Av. *janyāp* 'he may strike dead', prim. f. **ghy-īē-t*, fr. rt. *ghen-* 'strike dead'. Opt. 3. sg. Skr. *gamyāt* Av. *jamyāp* 'he may come', prim. f. **ghy-īē-t*, rt. *gem-* 'come'. Av. 3. sg. *mer'yeiti*, to Lat. *morior* (§ 119). Skr. 3. sg. *kuryāt* 'he may make' fr. **kryāt*, prim. f. **qr-īē-t* (§ 289).

In Av. for final *-ayē* (= prim. Ar. **-aṭai*) *-ēē* is written and for final *-ayem* (= prim. Ar. **-aṭam*), *-aem*, e. g. dat. sg. *matēē* = Skr. *matáy-ē* (nom. sg. Av. *maiti-ś* Skr. *matī-ś* f. 'sense, thought'), 1. sg. impf. *vaēdaem* 'I let know' = Skr. (*á-*) *vēdayam*, prim. f. **uoideio-m*, rt. *ueid-* 'know'. See Bartholomae Handb. §§ 93. 95. 224. 290.

§ 125. Postconsonantal. Skr. *jyā-* Av. *jyā-* 'bow-string', prim. f. **gi-ā-*. Skr. *sat-yá-* Av. *haiṇya-* O.Pers. *hašiya-* (read *hašya-*, s. below) 'true'. Skr. *ar-yá-* Av. *airya-* 'faithful, devoted to, Aryan'. 1. sg. Skr. *páš-yā-mi* Av. *spasyēmi* 'conspicio', Indg. **spek-īō*. Passive Skr. *śas-yá-tē* 'is valued', O.Pers. *pah-yā-mahy* 'we are called'.

In Vedic *i* often interchanged with *iḥ*, e. g. *dśv-īya-* 'ἱππιος', *rāj-īyá-m* 'dominion' (cp. Lat. *rēgiu-s*), *mitr-īya-* 'friendly' but *sat-yá-*; dat. abl. pl. *prajā-bhiyas* beside *prajā-bhyas* (*prajā-*

'posterity') *pitṛ-bhyas* (*pitár-* 'father'), etc. Cp. § 120. In the classical language mostly only *i* occurs, e. g. only *-bhyas*, only *raj-ya*- etc., only opt. *syām* 'sim'. The old grade *i̯* remained however e. g. in *mr-iya-tē* 'moritur', *kr-iya-tē* 'is made' (*kar-* 'make') and similar presents; in the opt. (precative) *kr-iya-t* from *kar-* and similar forms; in the aor. *a-śi-śriy-a-t* fr. *śray-* *śri-* 'lean against'; in the instr. sg. *bhiyā* fr. *bhī-* f. 'fear' (cp. Ved. part. *bhiy-ānā-*, Lith. *bij-aũ-s* 'am in fear') *striyā* from *stri-* 'wife' (but *i̯* in other than initial syllables: *dātryā* fr. *dātrī-* 'donatrix'). In the popular dialects *i̯* frequently appears for the *i* of the classical language, without the quantity of the preceding syllable being a criterion in the same manner as in Vedic. In this case it is undoubtedly, partly at least, not a question of Indg. *i̯* or analogy, but of a purely regular evolution fr. consonant + *i̯* (as in Lat.), e. g. Pāli *mari-yāda* = Skr. *maryāda* 'mark, boundary'; *ariya-* = Skr. *arya-* (*-iy-* very frequently after *r*); *kammaṇiya-* beside *kammañña-* = Skr. *karmaṇya-* 'operative, active'; Prākṛ. *cōriaṇi* = Skr. *cāurya-m* 'theft'; *uddisā* = Skr. *ud-diśya* absolutive 'by pointing to'. With Prākṛ. *ia* for *i̯a* cp. *ṇiutta-* = Skr. *nī-yukta-* 'bound to'.

Prim. Iran. *hi̯* = prim. Ar. *si̯* became *ñh* in Av., but *hy* was still retained in the Gāp̄ dialect. *vañhō*, Gāp̄. *vahyō* : Skr. *vās-yas* 'melius', neut. compar. of *vanhu-* : Skr. *vāsu-* 'bonus'. Cp. § 558, 3.

Final *-i̯a -i̯ā*, which was still retained in the Gāp̄ dial. as *-yā* (i. e. *-ya* and *-yā*, § 649, 1), appears after consonants, especially after *h*, (= prim. Ar. *s*, § 558, 3) as *-ç*. *yçhç*, Gāp̄. *yçhya* : Skr. *yá-sya*, gen. sg. fr. *ya-* 'which'.

-ñm appears for *-ym*. *ainim* : Skr. *anyá-m* 'alium' (Gāp̄. also *anyēm*). *haiṇm* : Skr. *satyá-m* 'verum'. Similarly *yçsn̄m* : Skr. *yajñīya-m* 'venerandum'. Cp. Bartholomae Handb. § 95.

In Av., as in Vedic, the metre shows that *y* is often to be read as *iy* especially after long syllables, e. g. *bāmya-* 'beaming, shining' as *bāmiya-*, dat. pl. *hitac̣byō* = Skr. *siṭē-bhyas* 'vinctis' as *hitac̣biyō*. This is further shown by the preceding voiceless

explosives not being changed into spirants, e. g. *dāitya-* 'legal' was *dāitiya-*; because **datīa-* would have become **daiḥya-*, as e. g. *haiḥya-* = Skr. *satyá-* 'true' shows (§§ 353. 473).

In Old Persian *iy* or *īy* mostly occurs (the latter only graphically different from *iy*, s. § 21). In a number of cases in which these spellings are found, the pronunciation may have been *ī* as in Ved. and Av. But this can only be directly supported in cases where the preceding *t* was not changed to *š* (§§ 353. 473), e. g. *martiya-* 'homo' = Av. *mašiya-* (*š* = *rt* § 260) Ved. *mārtiya-* (§ 120 p. 112). In most cases, however, *iy* (*īy*) will have to be read as *ī*, certainly in *hašiya-* (= Av. *haiḥya-* Skr. *satyá-*) and others, where *š* was caused by *tī*, probably in *aniya-* (= Av. *anya-*, Skr. *anyá-*), *maniyahy* (2. sg. conj. pres., to Av. 1. sg. indic. pres. *manya*, Skr. 3. sg. pres. indic. *mānyatē* fr. Ar. *man-* 'think'), 3. sing. opt. *jamīyā* (= Av. *jamyāḥ* Skr. *gamyāt* 'eat') and others of the same kind.

On the other hand O.Pers. *tya-* 'which' is to be read as *tīya-* on account of the non-change of the *t*, cp. Ved. *tiyá-* beside *tyá-* 'that, the'.

§ 126. Antec consonantal and finally. The vowel remained *ī* after *a* (*ai*) in Sanskrit, whereas in prim. Ar. and prim. Skr. *aī* became *ē*. Prim. Ar. and prim. Iran. *aī* appears in Av. as *aē* (i. e. *aē*) or *ōi*, finally as *-ōi* and *-ē*, prim. Ar. and prim. Iran. *aī* as *ai*; prim. Ar. *aī* and *āī* remained unchanged in O.Pers. (*ai*, written *-aiy -ay* when final, and *ai*).

Prim. Ar. 3. sing. **aī-ti* 'goes' = Indg. **éi-ti*, Gr. *ελ-οι* : Skr. *éti*, Av. *aēti* (fr. *aēti* § 638), O.Pers. *aītiy*. Prim. Ar. 3. sg. **bharaiṭ* 'he may bear' = Indg. **bhéroṭ*, Gr. *φεροι* : Skr. *bhárēt*, Av. *bārōiḥ*. Prim. Ar. **dūrai*, loc. sg. of **dūra-* 'distant', cp. Gr. *οἶξει οἶχοι* 'at home' : Skr. *dūrē*, Av. *dūrōi* *dūirē*, O.Pers. *dūrai* *dūray*.

3. sg. Skr. *ātt*, Av. *aiḥ* 'went', Indg. **ēit* fr. **é eit*, fr. rt. *eī-*; O.Pers. *atiy-āiš* 'went beyond' (the ending *-š* from the sigmatic aorist). Instr. Skr. pl. *śatāiḥ* Av. *satai-š* from st. Skr. *śata-*

Av. *sata-* 'centum', Gr. *-οις* (§ 611). Av. dat. sg. *mazištāi* fr. st. *mazišta-* 'maximus': Gr. *μεγίστωρ*.

Cp. §§ 62. 78. 94.

§ 127. The transition of *i* to a palatal spirant.

y was probably everywhere a consonantal vowel in Vedic and classical Sanskrit. Whilst initially and frequently also medially it became a spirant in Prākṛit, hence e. g. *ja-* 'which' (𑀧𑀸) = *ya-*, *kajja-* n. 'business, trade' (𑀓𑀲𑀸𑀓𑀲𑀸) = *kārya-*.

Bartholomae (Handb. pp. 9. 36 f., cp. also Hübschmann Kuhn's Ztschr. XXIV 354 f.) thinks that it had partly a spirantal function in Iranian. The change of prim. Ar. tenues into spirants seems to have been caused by this in every case. (§ 473).

Armenian.

§ 128. It is here difficult to ascertain the sound-laws owing to the scarcity of reliable etymological material. In any case *i* probably did not remain unchanged.

Initial *i* seems to have become a spirant *j* in *je-r* 'your', which is generally connected with Skr. *yu-šma-* Lith. *jūs* 'ye'.

i disappeared after consonants. *çu* 'a breaking up', to Skr. *cyu-ti-š* 'quick motion, departure from something'; it is not however clear whether the prim. Indg. rt. is *qieu-* or *qjeu-*. Epenthesis appears in *ail*, gen. *ailoy*, 'alius' fr. **alio-* (Goth. *alja-* Gr. *ἄλλο-* etc.).

For the rest we refer to Hübschmann Armen. Stud. I 78.

Greek.

§ 129. Initially uniformly *'*, which presupposes a voiceless *i* as intermediate stage. *ōs* 'who': Skr. *yā-s*. *ἥπαρ* 'liver': Av. *yākar*, Skr. *yakṣt*, Lat. *jecur*. *ἁγνός* 'holy, venerable': Skr. *yajñá-s* 'offering'. *ἰσμετῆν* 'battle': Skr. *yudh-* 'fight'. Lesb. ' fr. *'*: *ῥμμες* 'ye' beside Att. *ῥμμεῖς*, to Skr. *yu-šma-*, cp. Lesb. *ò* fr. *í* = Skr. *sá* § 564.

§ 130. Intersonantal. *i* between vowels, when the first was not *u*, dropped out in prim. Gr. (except when, after *i*, it

served as a glide to the following vowel, s. § 131). *δέος* 'fear' fr. **δFελ-ος*, Hom. pf. *δείδω* i. e. **δέιδFω* 'I fear' probably from **δέιδFo(ι)-α*, rt. *δμει-*. Nom. plur. *τρεις* 'three' fr. **τρε(ι)-ες* : Skr. *tráy-as*. 1. sg. *φοβέω* 'I frighten, scare away' : Skr. *bhā-jáyami* 'I hunt'. The cases, in which *ι* seems to have been retained in this position, are new formations, e. g. Arcad. *τείω* 'I atone for, pay' not = Skr. *cáy-a-tē*, but a formation from *τίω* *τίω* (Skr. *cī-yá-tē*) after *τείσω* *ἔτεισα* etc., Hom. *ὀκνέω* beside *ὀκνέω* 'I hesitate, linger' not fr. **ὀκνε-ω* (cp. *ὄκνο-ς* 'hesitation'), but formed after such presents as *τελείω* fr. **τελεσ-ω* 'I finish' (§ 131).

ι after *υ*: Cypr. opt. *φύ-ιη* = Av. *bu-yā-p*, Indg. **bhu-ιῑ-t*; Lesb. pres. *φνίω* fr. **bhu-ιῑ*, rt. *bheμ-* 'be, become'.

When the second vowel arose from Indg. sonantal nasal: 1. sg. *ἦα* 'went' for regular **ῆα* (*ῆ-*, formed after *ῆμεν* etc.) fr. Indg. **éi-η*, 3. pl. opt. mid. Hom. *φερούιτο* for **φειρούιτο* (-oi- after *φειρούμεθα* etc.) fr. **bhéroi-ηto*, rt. *bher-* 'bear'.

1. sg. *τεκταίνω* 'I make' fr. **τεκτανω*, **τεκνυ-ω* fr. *τέκτων*. *βαίνω* fr. **βανω*, **βamu-ω*, **gm-ιῑ* (§ 204), rt. *gem-* 'go'. Cp. § 234. *σπαίρω* 'I struggle convulsively' fr. **σπαρω*, **spr-ιῑ* (§ 293) : Lith. *spiriù* 'I push with the foot'. *ι* palatalised nasals and *ρ* and combined with the preceding *α* to form *αι* (§ 639). On the other hand *σκάλλω* 'I stir up, hoe' fr. **σκαλω*, **sqł-ιῑ* : Lith. *skilù* (fr. **skil-ιu*) 'I strike fire'. Cp. § 131.

§ 131. Postconsonantal.

σι- became ' : *ύ-μνήν* (*ῡ*) 'thin skin' *ύ-μν-ος* 'hymn, song', to Skr. *syā-man-* 'cord' *syū-tá-s* 'sewed', cp. further the compounds with *κατ(ά)* *κάσσωμα* Att. *κάττωμα* 'anything stitched, leather sole', *νεο-κάττωτος* 'new-soled'.

Postvocalic *s* and *μ* became palatalised by a following *ι*, then the latter combined with the preceding vowel to form a diphthong (§ 639). Gen. sg. **το-σχο* 'of the' = Skr. *tá-sya* became **τοισο*, Hom. *τοῖο*, Att. *τοῖ*. Hom. *τελείω* Att. *τελῶ* 'I complete' fr. **τελεσ-ω* st. *τέλεσ-* 'end', cp. Skr. *namas-yá-ti* 'honours' from *námas-* 'honour, respect'. Hom. *εἶην* 'sim' fr. **έσλην*, cp. Skr. *syám*; the -ι- in the Att. form *εἶην* is due to the

influence of εἶμεν. *κλαF-ιω 'I weep' (fut. κλαί-σομαι) became *κλαFιω, hence Hom. Att. κλαίω, but *κλαFε- Att. κλάε- in κλάεις etc., like δᾶήρ 'brother-in-law' fr. *δαιFηρ = Skr. dēvár-, s. § 96. The double forms κλαίω, and κλάω, as well as καίω and κάω 'I burn, light' (fut. καύσω) are due to levelling: the forms were originally κλαίω κλάεις κλάει κλαίόμεν etc.

*κτεν-ιω 'I kill' became κτένω in Lesb. and κτείνω in Att. (by compensation lengthening). *ἀμειν-ων 'better' became Att. ἀμεινών Boeot. Ἀμεινοκλειός Arcad. Ἀμηνείας Cypr. Ἀμηνία. *φθερ-ιω 'I destroy' became Lesb. φθέρω, Att. φθείρω, Arcad. φθήρω. Πείρ-(ανθο-ς) = Lesb. πέρρ-(οχο-ς) fr. *περχ-. These forms show that Hom. εἶν and ὑπείρ, which arose from *ἐνχ, *ὑπερχ before words beginning with a vowel, are due to compensation lengthening. περρι- Dor. πηρι- (Πηρί-θοο-ς, Πηρί-θοο-ς) is a mixture of περρι + περρ- (Dor. *πηρρ-), as is also Hom. εἶνι of ἐνι + εἶν. Cp. § 618.

Whereas *στελ-ιω 'I order' became universally στέλλω, *ἀλχο-ς 'alius' Att. etc. ἄλλος, but Cypr. αἰλλο-ς. Cp. §§ 130. 639.

Indg. *gi ghī, kī, ghī, tī, dhī* appear as σσ, ττ, see § 489; Indg. *gi, gī, dī* as ζ (σδ), δδ, s. § 493.

Indg. *pi* became πτ. Verbal stem πτῦ- in πτέω 'I spit' fr. *(σ)πῑῦ-: Lith. *spíau-jū* O.Bulg. *plju-jā* (fr. *(s)piū-ia, § 147) 'I spit', Skr. *abhi-ṣthyā-ta-* 'bespit' (cp. § 327). χαλέπτω 'I oppress, depress' fr. *χαλεπ-ιω fr. χαλεπό-ς.

The prim. Indg. duality *i* and *iī* was preserved e. g. in μέσος μέσιος 'medius' (fr. *μεθ-ιο-ς = Skr. *mādhyā-s*) compared with πάτριος 'patrius' (= Skr. *pātriya-s*), in ῥέζω 'I do, work' (fr. *Fρεγ-ιω, cp. § 120) compared with ἱδ-ίω 'I sweat'. On the other hand the Lesb. forms μέτερος, ἀλλότερος = Att. μέτριος 'moderate', ἀλλότριος 'alienus' etc. show a sound-change which took place within Greek itself: μέτριος became *μετρίος, *μετερίος, thence μέτερος (§ 626). It seems to me more probable that the ζ in Lesb. ζά, κάρζα, Ζόννυος, Cypr. κόρζα and others, beside δια, καρδιά, Διώνυος (s. Meister Griech. Dial. I p. 127 ff.) is due to a Gr. change of *i* to *iī* than to regard it as an old inherited double form as is the case with μέσος and πάτριος.

The Cypr. orthography *Παφίμ*, *ἱατῆραν*, Pamphyl. *διδά*, *Εστφε(ν)δινς* (= *Ἀσπένδιος*) (read *id*), and other facts show that the antevocalic *i* was pronounced *-i-* in words like *πάτριος*. The ending *-ιος* was therefore probably the unchanged form of Indg. *-iō-s*.

§ 132. Anteconsonantal and finally.

The Indg. anteconsonantal *ei*, *oi*, *ai*, *ēi*, *ōi*, *āi* can all be proved to be pure *i*-diphthongs up to historical times. E. g. *εἶμι* (= Indg. **eimi* 'I go'), *οἶδε* (= Indg. **moide* 'he knows'), *φέρεται* (= Indg. **bheretai* 3. sig. mid. fr. rt. *bher-* 'bear'), *ἵππω* (= Indg. **ekūdi* 'to a horse'), *χώρα* 'to land' with Indg. ending *-ai*) were, in Attic, still pronounced with *ei*, *oi* etc. about 500 B. C.

But *ei*, *oi*, *ai* underwent manifold changes even at an early period. In certain cases *i* became *e*, and in others the consonantal vowel coalesced with the first component to form a simple long vowel. S. §§ 64. 80. 96. In the Middle Ages monophthongs were generally the only forms still met with.

The first component of *ēi*, *ōi*, *āi* was shortened before consonants in prim. Gr., e. g. *ἵπποις* = Skr. *áśvāṣ* (§ 611). When final, they remained unchanged up to historical times. But then final *i* became mute at the same time with the new *i* in the combinations *η*, *ω*, *αι* (*η*, *ω*, *αι*) which in the meantime had often arisen before consonants, as *ἦτε* 'ye went', *ὀάδιος* 'easy'. This process however did not extend itself over the whole language at the same time; it seems everywhere to have taken place with *η* earlier than with *αι* and *ω*. Towards the end of the third Cent. B. C. they were still only spoken as simple vowels in all or most dialects, e. g. *ἵππω* as *hippō*, *ἦτε* as *ēte*.

Italic.

§ 133. Initially. Indg. *i* and *j* fell completely together in *i*, written *j* in Lat. words, and *i* in Umbr.-Samnitic. Indg. *i* e. g. in Lat. *jecur* 'liver': Skr. *yakft*, Gr. *ἥπαρ*. Cp. Lat. *jugu-m* 'yoke': Gr. *ζυγό-v*, with Indg. *j-*. It is frequently uncertain

whether a form represents Indg. *ī*- or *j*- : Lat. *jocu-s* 'joke', Umbr. *iuka* 'ioca' : Lith. *jūkas* 'joke'; Lat. *juven-i-s juven-cu-s*, Umbr. *ivengar* nom. 'iuvencae' (*i*- fr. **īu*-) : Skr. *yūvan-* 'young' *yuva-śá-s* 'youthful', Goth. *juggs* 'young'.

Several centuries after the beginning of the Christian era Lat. *j*- (*ī*-) became a spirant which became developed to *dž*- : cp. e. g. Ital. *giovane* Fr. *jeune* with Lat. *juvenis*.

§ 134. Intersonantal. *ī* between vowels seems to have disappeared already in prim. Italic¹⁾, when after *i* it did not serve as glide to the following vowel. Lat. *eā*- 'she', acc. *eam* : Goth. *ijō*- 'she', acc. *ija* ; cpf. **eīā*-; Umbr. *eam* 'eam' eaf 'eas', Osc. *io*k 'ea'. Nom. pl. Lat. *trēs* 'three' fr. **tre(ī)-es* : Skr. *tráy-as*; Lat. *pontēs*, Umbr. *puntes* 'bridges' : O.Bulg. *patīje patīje* 'ways'. Lat. st. *aer-* (gen. *aer-is*) 'ore, bronze' *aēnu-s aēnu-s* 'brazen', Umbr. *ahesnes* 'aenis' (where *h* only indicates the separation of the vowels in both dial.), fr. **aīes*-, **aīes-no*- (§ 570) : Skr. *áyas-* 'iron'. Lat. *stō* 'I stand' fr. **stā-(ī)ō*, *stās* fr. **stā-(ī)e-s*, Pelign. *incubat* 'incubat'. Lat. *neō* 'I sew', *neunt* fr. **nē-(ī)ō*, **nē-(ī)o-nt* : OHG. *nāan* 'to sew'. *fleō* 'I weep' : O.Bulg. *hlē-jā* 'I bleat'. *sileō* 'I am silent' fr. **silē-(ī)ō*, cp. Goth. 3. sg. *siláip* 'silet' fr. **silē-īe-ti* (§ 142). O.Lat. compar. *plēōres* 'plures' : Skr. *prā-yas*-, cpf. **plē-īes*-. Causat. *moneō* 'I cause to remember' fr. **moneīō* : Skr. *mānáyāmi* ; 2. pl. imper. *monēte* fr. **mone(ī)ete* : Skr. *mān iyata*. Osc. *pútíad* 'possit' fr. **pote(ī)āt*, to Lat. *potēns potui*. O.Lat. *cluō* 'I am called, named' : Skr. *śrū-yá-tē* 'is heard'. O.Lat. conj. *fuat* 'sit' : Lesb. *qvíw*.

Lat. *fīniō* 'I finish' represents an older **fīni-īō*. from *fīni-s*, just as Skr. Ved. *arāti-yá-ti* 'is hostile, bears illi-will' from *arā-ti-ś* 'hostility'. Notwithstanding the orthography *-iō* we must probably assume that *ī* was not quite mute. This consonant however disappeared by contraction in *fīnīs*, *fīnīte*, whose original endings were **i-īe-s*, **i-īe-te*. Cp. § 135 concerning *fierī*, *patrius* etc.

1) Some forms, in which *ī* was only apparently retained, as in Osc. *stafet*, Umbr. *fuia* 'fiat' *portaia* 'portet', will be disposed of in the accidence.

Indg. **gmi-ĩō* (Gr. βαίνω) 'I go' became **gmenĩō* in prim. Italic (§§ 208. 239), thence Lat. *veniō*; Indg. pres. st. **mŕ-ĩō* 'die' (Av. 3. sg. *mer^e-ye-iti*) became prim. Ital. **morĩō* (§ 296), thence Lat. *morior*, s. §§ 120. 135.

§ 135. Postconsonantal. *i* was only retained as a consonant in this position when a consonant had disappeared before it. Lat. *Jov-is*, Umbr. *Iuv-e* Osc. *Iuv-eĩ* 'Iovi': Skr. *dyáu-š*, Gr. Ζεύς. Lat. *ajō* 'I say' fr. **ah-ĩō* or **ah-ĩō* beside *ad-agium*: Skr. pf. 3. sg. *āha* 'said'; *mājor* 'greater' beside *māgnu-s*: Skr. *māhīyas-* 'greater'; cp. § 510.

In other cases *i* became sonantal, a process which may be compared with the transition of the suffix *-uo-* to *-uo-* (§ 170), of *-clo-* to *-culo-* (intermediate stage *-cllo-*) etc. (§§ 269. 627). E. g. *mediu-s*: Skr. *mādhyā-s*; *alius*: Gr. ἄλλο-ς; *acu-pediū-s* 'quick-footed': Gr. πεζό-ς; *cōn-spiciō*: Skr. *páśyāmi*; *capīō*: Goth. *hafja*. In like manner also *veniō*, *morior* directly fr. **venĩō*, **morĩōr* (cp. § 134). That *i̯* was spoken (if only with a weak articulated *i̯*), is probable in itself, and is vouched for by such spellings as *Fabiū*s, *Corneliū*s (Seelmann Die Ausspr. des Latein. p. 237).

The form *socius* fr. **soku-ĩō-s* (rt. *seq-* in *sequor*, cp. Gr. ἀ-οοσητήρ 'helper' with σσ = *qi̯*, §§ 131. 489) is of interest for the chronology of the change of *-i-* to *-i̯-*, since *u* probably dropped out at a time when *i̯*, not already *i̯i̯*, was still spoken.

Further such forms as *capis capit* fr. **capies* **capiet* = Goth. *hafjis hafjiþ*, *cape* fr. **capī* (like *mare* fr. **mari*, § 33), the latter fr. **capie*, also point to this old *i̯*, likewise nom. *alis*, *Cornēlis* fr. *-i̯is* cp. Lith. *mēdis* fr. **medīis* (§ 84 rem. 1).

Rem. It is hardly probable that we have still an older *i̯* for *i̯(i̯)* in such quantities as *aviū*m (fr. *avi-s*), *prīncipiū*m, *faciās*, found in Roman poets, these possibly follow the prevalent pronunciation of some dialect. It is quite incredible that a similar one holds good for prim. Romance **medīus* (Italian *mezzo*) etc. (Diez Gramm. d. rom. Spr. I⁴ p. 179 ff., Horning Ztschr. f. rom. Phil. VII 572 f.).

On the other hand Indg. *i̯i̯* seems to have remained unchanged in the following cases. Lat. gen. pl. *trium*: Goth.

prij-ē, Lith. *trij-ū*, O.Bulg. *trǫj-ǫ trij-ǫ*, Gr. *τριών. patriu-s*: Skr. *pṛitriya-*, Gr. *πάτριος. rēgiu-s*: Skr. *rājīyá-*¹⁾. *siem* (later *sim*): Skr. *siyám*, Goth. *sijáu. du-bius* fr. **du-bhy-iōs*, *fierī* fr. Indg. **bhy-iō*, *fīs* fr. **bhy-iē-s*, from rt. *bhey-* (cp. § 120 and Osthoff Zur Gesch. d. Perf. 430 ff.).

We cannot tell whether the *i* was consonantal or sonantal in Umbr. *fasia*, Volsc. *fasia* 'faciat', Umbr. *avie* dat. 'auspiciis', Osc. *mefiai* 'in media', *diuvia-* 'Ioviā-' and other similar forms in the Umbr.-Samnitic dialects. Whereas *iĭ* may be traced in spellings as Umbr. *Vušiia-per* 'pro Vocia', Osc. *Iúviia* 'Ioviam' (cp. Osc. *Meelikiieis Meilixiov*), and *i* in such as Umbr. *vistiša vestisa* beside *vestiſiia vestiſiia* abl. 'libamento', *spinam-aŕ* beside *spiniam-a* 'ad spinam'. Osc. *s* from *tĭ* in *Bansae* 'Bantiae', *z* fr. *dĭ* in *zicolom* 'diem' (cp. Lat. *diēcula*). *i* seems to have sprung from older *iĭ* in both forms; the zetacistic process may have been limited to the local dialect of Bantia.

§ 136. Anteconsonantal and finally.

Indg. *ei*, *oi*, *ai* were still diphthongs in prim. Italic. At the beginning of historic times *ei* seems to have become an open *ē* in Lat. and Osc., the orthography *ei* was at all events retained for a long time after the diphthong had become monophthong (§ 65). *oi* and *ai* were certainly still diphthongs at the beginning of historic times. They became in the first instance *oe* and *ae*. For their further development s. §§ 81. 97. Prim. Ital. *ei*, *oi*, *ai* are met with only as monophthongs in Umbrian, e. g. *etu etetu* 'ito' fr. prim. Ital. **eitōd*, *unu* 'unum' fr. prim. Ital. **oiño-m*, *sve* 'si' = Osc. *svai svae*.

The first component of *ēi*, *ōi*, *ai* was shortened before consonants in prim. Lat. or prim. Italic, e. g. Lat. *oloes illis* = Skr. *-aiś*, Indg. **-ōis* (§§ 85. 612).

Final **-ōi* became *-ō* in Lat., e. g. dat. sg. *equō* = Gr. *ἑππῶ*; Marius Victorinus knew *-oi* ex libris antiquis foederum

1) *nōbis*, *vōbis* probably not fr. **-bhiĭes* = Skr. *-bhiyas* in Ved. *prajā-bhiyas* etc. (cp. Stolz Lat. Gramm. § 90), but a transformation of **-bhi* after *istis*, in the same manner as *tibi* was of **-bhi* after *isti*, cp. Skr. *tū-bhy-am* 'tibi', *yuſmā-bhy-am* 'vobis' with particle *-am* (see the accidence).

et legum; perhaps still the old *-ōī*. *-āī* became *-ā*, e. g. Dat. *Matūta* 'Matutae' like Gr. *χώρα*; *-āī* may still be represented in the oldest inscriptions in such forms as *Menervai*, whilst *-ae* is the locative ending of later times. Osc. dat. *Abellanūī* 'Abellano', *deīvai* 'divae'.

Old Irish.

§ 137. Initially. In most words which come under consideration it cannot be determined whether the initial sound was Indg. *ī*- or *j*-, and traces of this Indg. difference have not, so far as I know, hitherto been proved in Keltic. The consonant was dropped in Irish, but was retained in the Gallo-Britannic branch.

Indg. *ī*- in *Iud*- ('strife, fight') found in many Britann. proper names, as O.Cymr. *Iud-nerth* (*nerth* 'strength'): Skr. *yúdh-* 'battle, combat', Gr. *ἰσμήνη*.

Whether the following have Indg. *ī*- or *j*- is doubtful: O.Ir. *ōac* *ōc* Cymr. *ieuanc* Corn. *iouenc* Bret. *iaouank* 'juvenis' Gall. *Iovincillu-s*, prim. Kelt. **iōuəko-s*: Skr. *yuva-śá-s*; O.Ir. compar. *ōa* (Bret. *iaou*), superl. *ōam*: Skr. *yáv-īyas-*, *yáv-iṣṭha-*. O.Ir. *ēt* 'zeal', Gall. *Iantu-mārus* (cp. Mid. Ir. *edmur* = O.Ir. **ētmār* 'jealous, zealous' fr. *ēt* + *mār* 'great'). O.Ir. *aig* 'ice', Cymr. *ia* (= **iag*) 'ice', Bret. *ien* (= **iagin*) 'icy'. Other Gall. proper names with *ī*- as *Iura*, *Iuvavum* s. Zeuss-Ebel p. 47.

§ 138. Intersonantal *ī* had disappeared. *-tau -tō* 'I am', 2. sg. *-tai*: Lith. *stó-jû-s* 'I place myself'. *-caru* 'I love' (2. sg. *cari*) fr. **cāra-īō* or **cāra-īō*, a denominative verb like Gr. *τιμάω* fr. **τιμα-ιω*, Skr. *pr̥tana-yā-mi*.

§ 139. Postconsonantal. Dat. (instr.) sg. *ailiu* (i. e. *ailiu*) fr. **aliō*, stem *aliō-* 'other'. Compar. *laigiu* (i. e. *laigiu*) 'smaller' fr. **lag-īō(s)*: cp. Gr. *ἐλάσσιον* fr. **ἐλαχ-χων*.

-e with palatalisation of the preceding consonant (§ 640) appears for *-iō-* in the Indg. endings **-iō-s*, **-iō-m* and for **-iā*, e. g. *aile* 'alius', *aile n-* 'alium'; neutr. *suide n-* 'seat' fr. **sodīō-m*: Lat. *soliu-m*; *nūe* 'new': Skr. *nāya-s*, Indg. **neū-iō-s* (cp. §§ 66.

154); fem. *aile* 'alia'. This *-e* also appears in cases where according to § 120 we should expect an original *-iō-*, e. g. *orpe n-* n. 'hereditas': Goth. *arbi* n. 'inheritance'.

Rem. The process, which gave rise to this *-e*, is not clear. We do not know whether in this case we have also to take into consideration the suffix form *-ī-* (§ 84 rem. 1) for the masc. and neut., and for the fem. a suffix form as in Lith. *žolė* 'root, plant'. Thurneysen conjectures that **aljos* first of all became **alios* (cp. Lat. *alius*), thence **aʎeo(s)* (*i* is to be read as palatalised *ʎ*), *aile*; correspondingly in the fem. **aʎiā*, **aliā* **aʎea*, *aile*: cp. Gall. *Alisea* = *Alisia* and similar forms.

§ 140. Anteconsonantal and finally. In accented syllables *eī* became *ē* (*ia*) § 66; *oī* became *oe*, finally *ī* § 82; *aī* became *ae*, finally *ī* § 98.

Rem. Cp. § 657, 4 for final Indg. *-ōī*, *āī*.

Germanic.

§ 141. Initially. Indg. *ī-* and *j-* fell together in *ī-* in prim. Germ.

Indg. *ī-*. Goth. *jēr* OHG. *jār* n. 'year': Av. *yār*^e n. 'year', Gr. *ἔτος* 'year'. Goth. *jus* (*ū?*) 'vos': Lith. *jūs*, Gr. *ὑμεῖς*.

Indg. *j-*. Goth. *juk* OHG. *joh* n. 'yoke': Skr. *yugá-m*, Gr. *ζυγό-ν* 'yoke'.

It is uncertain whether we have Indg. *ī-* or *j-*: Goth. *juggs* (*jūggs?*) OHG. *jung* 'young', prim. Germ. **juyunā-ga-s*: Skr. *yuva-śā-s* Lat. *juven-cu-s*.

Goth. *j-* was *ī-*. In OHG. (and OS.) *ī-* before *e* and *i* became a spirant, which was written *g*, e. g. *genēr* 'yon', *gehan* 'to say, speak', indic. pres. *gihu*, but pret. *iah iāhun*; s. Braune Ahd. Gramm. § 116, Holthausen Die Soester Mundart § 182. Prim. Germ. *ī-* dropped out in O.Norse: O.Icel. *ár*, *ok*, *ungr* = Goth. *jēr*, *juk*, *juggs*.

§ 142. Intersonantal.

Goth. fem. stem *ijō-* 'ea' = Lat. *ea-*, cpf. **eīā-*.

Prim. Germ. *-iī-* = Indg. *-ei-* (§ 67) became *-ī-* before consonants and finally. Goth. *preis* OHG. *dri* 'three' fr. **priī-(i)z*: Skr. *tráyas*, O.Bulg. *trīje trije* etc., Indg. **tréī-es*; likewise Goth. *gasteis* OHG. *gesti* 'guests' fr. **gastiī-(i)z* = O.Bulg. *gostīje*

gostiġe, cpf. **ghostei-es*. 2. sg. imper. Goth. *nasei* OHG. *neri* 'save, nourish' fr. **nazi-ī(i)* (Goth. *s* for *z* after the analogy of *nisan* 'to recover, be healed', s. § 581), Goth. *fra-vardei* 'destroy (something)': Skr. *vartāya* 'let something take its course', Gr. *qóβei* 'scare' fr. **qoβe(ι)ε*, Indg. *-*éġe*. Cp. §§ 660, 1. 661, 2.

Goth. indic. 1. sg. *nasja*, 3. sg. *nasjiþ* (OHG. *neriu nerit*, Mod.HG. *nähre, nährt*) fr. prim. Germ. **naziō* **naziīdi*, still older **nozēiō* **nozēiēdi*. This -*eġe*-, younger -*īi*- became -*ī*- -*ī*- after long closed syllables: Goth. *fravardeiþ*. Cp. Skr. 1. sg. *vartāya-mi*, 3. sg. *vartāyati* = Indg. prim. f. **uortēiō*, **uortēġe-ti*. Goth. *anamahtja* 'I offer violence', 3. sg. *anamahteiþ*, from *anamahti*- f. 'reproach', can be traced back to Indg. *-*i-īō*, *-*i-īē-ti*, cp. Skr. Ved. *arāti-yá-ti* 'is hostile' from *arāti*- 'hostility'. Cp. § 635.

It is questionable whether Goth. 1. sg. opt. *baírau* (indic. *baitra* 'I bear') is regularly developed from **bhero-ī-n* prim. Germ. **beraiu(n)* (§ 244) (Paul in Paul-Braune's Beitr. IV 378, VI 161, Osthoff Morph. Unt. IV 302, Zur Gesch. d. Perf. 626).

Goth. *sinja* 'I sew': cp. Gr. *κασσέω* fr. **κατ-σιῖ-ιω*, O.Bulg. *šija* fr. **siy-īq* (§§ 60. 147), Lett. *schuju*.

Indg. *ēġ-* appears in Goth. before vowels as *ai-* (*aij-*). *saia* 'I sow', 3. sg. *saiiþ* (also *saijiþ*, *saijands*): Lith. *sėjū* O.Bulg. *sěja* 'I sow', cpf. **sēiō*. *armaiō* f. (st. *armaiōn-*) 'compassion' (from *arma* 'I pity', 3. sg. *armáiþ*), prim. Germ. **armēiōn-*. In unaccented final syllables as -*ai-* fr. original -*ē-ġe-*: 3. sg. *armáiþ* fr. **armē-īi-đ(i)*, *-*ē-ġe-ti*; it is here a question of the present-class which is represented in Lat. by *habēre*, *tacēre*, *silēre* (Goth. *haban*, *þahan*, *silan*). In OHG. we have the forms *sāan* (*sāhan*), *sān*, *sāian* (*i* = *ī*), *sāwan* (OS. *sāion*, Ags. *sāwan*, O.Icel. *sā*) as compared with Goth. *saian* and the form *armēt* as compared with Goth. *armáiþ*.

Rem. 1. The much discussed question as to the history of antevocalic *ēġ* in Germanic (recently more fully discussed by Paul in Paul-Braune's Beitr. VII 152 ff., Kögel IX 509 ff., Bremer XI 46 ff.) has not yet been completely cleared up. The following seems to me to be the most probable.

**sēiō* existed up to the end of the prim. Germ. period. The *ai* in Goth. *saia* was the long vowel of the *ai* in *baitra*, namely an open *ē*,

which vowel is certainly to be assumed also in loan words as *hairaisis* = Gr. *αἵραισις*; (Gr. *αι* was an open *ē* in Ulfila's time); s. Braune Got. Gramm.² p. 11. Cp. Goth. *au* before vowels § 179. It is probable that the *j* in *saijīþ* was still prim. Germ. *-i-*, but it must not be maintained as certain. We may apparently assume for West Germ., where *ē* became *ā* (§ 75), that *i* partly (before *a* and guttural vowels) regularly dropped out and that then *w* made its appearance before guttural vowels as glide (1. sg. *sāwū*), after which by form assimilation *i* became also used before guttural vowels and *w* before palatal; and at this stage the different dialects took different directions. One might also assume that those forms in which *i* regularly dropped out were extended by analogy to all other forms and that *i* was later generated again as a glide in *sā-is*, *sā-it* etc.

Original *ēje* in unaccented final syllables was treated somewhat differently. 3. sg. **armēiđi* became **armēiđi* (with open *ē*), thence Goth. *armđiþ* and OHG. *armēt*. For Goth. 1. sg. *arma*, 1. pl. *armam*, see the accidence.

Prim. Germ. **blōjana-n* 'to blossom' (cp. Lat. *flō-s flō-r-is* 'flower'): OHG. *bluoan* (*bluohan*) *bluoian bluwān*, OS. *blōian*, Ags. *blōwan*; cp. OHG. *sāian sāwān* above. Prim. Germ. 3. sg. **friiō-i-đi* 'loves' (= O.Bulg. *prija-je-lŭ* 'takes care of') became **friiōiđi*, **friiōđi*, thence Goth. *frijōþ*, analogously OHG. *salbōt* = Goth. *salbōþ* 'anoints'; cp. Goth. compar. *armōza* 'poorer', superl. *armōsts* 'poorest' fr. **armō-izō, -ista-z*, which first became **armōizō -ōistaz*.

Rem. 2. It is remarkable that *ōi* and *ēi* were treated differently before consonants, but I see no plausible means of avoiding this assumption.

After short vowels *-i-* occasionally appears as *-ddj-* in Goth. Gen. pl. *tvaddjē* 'duorum': Skr. *dwayá-*. *daddja* 'I suckle': Skr. *dháyā-mi*. *iddja* 'I went': Skr. *á-yā-m*. To this *-ddj-* corresponded O.Norse *-ggj-*, e. g. O.Icel. *veggja*: Goth. *tvaddjē*. In Westgerm. the original prim. Germ. 'sound' generated an *i*, which, uniting with the preceding vowel, formed a diphthong, and when the preceding vowel was *i*, an *ī*, e. g. OHG. *zueijo*: Goth. *tvaddjē*, *Frīja*: O.Icel. *Frigg*. The conditions for this universal Germ. special treatment of *-i-* have not been determined. Cp. § 179 and Kögel in Paul-Braune's Beitr. IX 523.

Rem. 3. The consonant, developed before the prim. Germ. *i*-sound in Gothic-Norse, was a palatal *g*. Nothing stands in the way of our assigning this palatal value to O.Icel. *gg* before *j*. This sound moved further

forward in Gothic and became (dorsal?) *d* (*dd*). See Braune in Paul-Braune's Beitr. IX 545 f.

Indg. Combination *-ŷī-*. Goth. *glitmunja* 'I shine', like Gr. *σπερμαίνω* 'I sow with seed', Indg. *-mŷ-īō* (§ 245). Goth. *kuni*, st. *kunja-*, n. 'sex, race' fr. **gŷ-īō-*; *sama-kunja-* 'of the same race or family' to Gr. *ὁμό-γνιο-ς*, which stand to one another in the same relation as Lat. *morior* to Skr. *mriyē* 'I die' etc. (§ 120 p. 112).

Goth. *-j-* was *-ī-*. The frequent spelling with *g* in OHG. points to a spirantal pronunciation, e. g. *pluogentiū* to *bluoian* 'to blossom', *wart-sāgo* 'seminiverbius' to *sāian* 'to sow', 3. pl. opt. pres. *salbogēn* beside *salboiēn* *salboēn* from *salbōn* 'to anoint', cp. § 120 extr.

§ 143. Postconsonantal.

Consonant + *ī* in the initial syllable was not retained unchanged.

Of the Indg. double form of the Opt. **siē-m* and **siē-m* 'sim' the latter only survived: Goth. *sijáu*. Cp. also *us-kijans* 'sprouted forth' (pres. 1. sg. *us-kei-na*), originally **gi-ono-s* fr. rt. *gei-* (Osthoff Morph. Unt. IV 38. 368. 373).

The *ī* of **siǣ-* united with the following *u* to form a diphthong in Goth. *siujan* OHG. *siuwan* 'to sew', OHG. *siula* 'awl' (cp. Skr. *syā-tā-s* 'sewn', Lith. *siū-ta-s* 'sewn', *siūla-s* 'sewing thread'), likewise in OHG. *chiuwan* 'to chew' fr. **gǣ-* (cp. O.Bulg. *šivq šujq* 'I chew' fr. **zǣvq* **zǣūq*, §§ 52. 147).

Rem. With *siujan*, as compared with *midjun-gards* 'sphere of the earth' (i. e. **midjum(a)-gards*) etc., compare *pūs* 'servant' fr. **pīu(a)-z* (gen. *piv-is*) with *sunjus* 'sons' fr. **suniu(i)z* (cp. § 179).

Medially.

Goth. *midjis midja* 'medius media': Skr. *mādhya-s mādhya*. *aljis* 'alius': Gr. *ἄλλο-ς*. *bērus-jōs* 'parents', properly partic. 'having brought forth': cp. Lith. gen. ag. partic. pf. *sūkus-io* of *sukù* 'I turn'. Opt. *viljáu* 'velim'¹⁾ for orig. **uel-īē-m* (with this cp.

1) The ending formed after the analogy of *bairdu*, s. the accidence.

siġáu for orig. **s-iġ-m*). *hafja* 'I raise': Lat. *capiō* fr. **capiō*. Verbs in *-atja* as *káupatja* 'I give a box on the ears', *svōgatja* 'I sigh' like Gr. verbs in *-άζω* fr. **-ad-μω*. Of the nom. sg. *haiŕdeis* 'herdsman' fr. **χirdi(i)-z* (cp. 3. sg. *fra-vardeiþ* fr. **uardi(i)d(i)*, § 142) as compared with *harjis* 'army' we have already spoken in § 120, we refer also to § 660 rem. 3; pl. *haiŕdjōs* fr. **χirdiōz* like 1. sg. *fra-vardja* fr. **uardiō*. Goth. *namnja* 'I name' may be regarded as the representative of a prim. Germ. form **namn-iġō*, so that it would stand to *glitmun-ja* 'I shine' (§ 142) in the same relation as Skr. *mr-iyá-tē* to Av. *mer^e-yç-iti* (§ 120 p. 112) and as Gr. *πότεν-ια* to *τέχτανα* (fr. **τεχταν-ια* § 234).

In OHG. *i* had suffered manifold changes the course of which it is to some extent difficult to control, because no difference was made in writing between *i* (*j*) and *i*, and because the fate of *i* was connected with the West Germanic consonant-lengthening which arose before this consonant (§§ 215. 277. 529. 532. 535. 540).

-ri- after short syllables became by anaptyxis *-rii-*, *-rig-* (*g* signifies palatal spirant, cp. *genēr* § 141, *pluogentiu* § 142). Dat. *herie herige*: cp. Goth. *harja* 'exercitui'. Nom. *ferio ferigo* 'ferry-man': Goth. **farja*. Cp. § 628.

In other respects postconsonantal *-i-* was still retained in the oldest period, *e*, that is *ġ*, was also written instead of *i*, and disappeared in the IX cent. *willio willeo* (read *willġo willġeo*) *willo* 'will, desire': Goth. *vilja* m. *heff(i)an*: Goth. *hafjan* 'to raise', *bitt(i)an*: Goth. *bidjan* 'to beg'.

i had already disappeared before *i* prior to the time of our oldest monuments. 2. sg. *bitis*: Goth. *biġjis* 'thou beggest'. Dat. pl. *herim* fr. **her-iim* (and further fr. **-iēm*, **-iōm*): Goth. *harjam* 'exercitibus'. More will be found regarding postconsonantal *i* in OHG. in Braune's Ahd. Gramm. p. 83 ff.

§ 144. Anteconsonantal and finally.

Indg. *eġ* became *iġ*, *ī* in prim. Germ. 1. sg. **stīzō* (Goth. *steiga*) 'I ascend': Gr. *στείχω*. Loc. sg. **χαιmī* (OHG. *heimi*

heime) 'at home' : cp. Gr. *οἶκε* 'at home' (Kögel Zeitschr. f. deutsch. Altert. 1884 p. 118 f.). See § 67.

Indg. *oi* and *ai* fell together and have partly remained *i*-diphthongs up to the present time. 3. sg. Goth. *vait* OHG. *weiz* Mod.IIG. *weiss* : Gr. *φοῖδε*. Nom. pl. Goth. *þái* OHG. *thē dē* 'the' : Gr. *τοί*. OHG. *seita* f. *seito* m. 'string, cord' : Lat. *saeta* 'strong hair, bristle', Lith. *sēta-s* 'cord', from rt. *sai-* 'bind'. See §§ 83. 99.

Goth. dat. sg. fem. *gibái* 'to a gift' fr. orig. *-ai* : Skr. Ved. *-ai*, Gr. *-a*. See §§ 659, 3. 660, 3.

Baltic-Slavonic.

§ 145. Initially. Indg. *i-* and *j-* fell together in *i-*, which has retained the pronunciation as consonantal vowel in historic times. Acc. sg. fem. Lith. *jā* O.Bulg. *jā* 'eam' : Skr. *yā-m* Gr. *ἄν ἦν* 'quam', Indg. **iā-m*. Lith. *jó-ju* 'I ride, drive', O.Bulg. *jadā* 'vehor' : Skr. *yā-mi* 'vehor', Indg. **iā-*. Lith. dial. *jeknos* pl. 'liver' : Lat. *jecur*, Gr. *ἥπαρ*. Lith. *jūs* 'vos' : Skr. *yūyām*, Gr. *ὑμεῖς*.

In Slavonic initial *iŕ-* became *i-*. *i-že* 'qui' fr. **iŕ-že*, beside which *jŕ* (= Lith. *jŕs*, cpf. **iŕ-s*, § 84 rem. 1), which was enclitically attached, remained ; cp. especially the 'definite' declension of adjectives, as *dobry-jŕ* and *doblji-jŕ*, and *bereto j(ŕ)* = *beretŭ jŕ* with the same change of *ŭ* to *o* as in *domoch(ŭ)* = *domŭchŭ* §§ 52, 665, 5. *igo* 'yoke' fr. **iŕgo*, older still **iŕgo* : Skr. *yugá-m*, Gr. *ζυγόν* with Indg. initial *j-*.

§ 146. Intersonantal. Lith. *vejù* O.Bulg. *vŕja vija* 'I turn, wind' : Skr. *váyāmi* 'I weave', cpf. **uélj-ō*. Lith. *dvejì* 'by twos' O.Bulg. *dvojŕ* 'twofold' : Skr. *dvayá-* 'twofold'. Lith. *sėju* O.Bulg. *sějā* 'I sow' : Goth. *saia*, cpf. **sējō*. Lith. *lójū* O.Bulg. *lajā* 'I bark' : Skr. *ráyāmi* 'I bark'. Lith. *pāsako-ju* 'I relate', O.Bulg. *lāka-jā* 'I deceive' : cp. Skr. *pṛtanā-yā-mi* 'I fight'. Lith. *at-saj-à* 'horse traces' fr. rt. *sai-* 'bind'. O.Bulg. *gostije gostije*

1) The orthography *ēdā* beside *jadā* is due to a false representation of the sound-combination *ja*, which was occasioned by the change of orig. *z* to *ja* (§ 76).

'guests' fr. **-ej-es* : cp. Skr. *āvayas* 'oves'. O.Bulg. instr. sg. *ženojā* of *žena* 'wife' : cp. Skr. *jihvāyā* fr. *jihvā-* 'tongue'.

Lith. *miniū* O.Bulg. *mŕnjā* 'I think', prim. Balt.-Slav. **mŕn-īō* : Skr. *mānyatē* 'he thinks', Indg. pres. st. **mŕ-īe-*. O.Bulg. *žŕnjā* 'I cut off', orig. **ghŕ-īō* from rt. *ghen-* 'strike, hew'. Lith. *spiriū* 'I push with the foot' : Gr. *παίρω* 'I struggle convulsively', cpf. **spŕ-īō*. Lith. *skilū* 'I strike fire' : Gr. *σκάλλω* 'I stir up, hoe', cpf. **sqŕ-īō*. Cp. §§ 250. 304.

ī as glide between *i* and a following vowel. Gen. pl. Lith. *trij-ū* O.Bulg. *trij-ī* *trij-ī* 'trium' : Goth. *þrij-ē*, Gr. *τριών*, Lat. *trium*. O.Bulg. *prija-znī* *prija-znī* 'love' : Goth. st. *frija-*, nom. sg. *freis* 'free', Skr. *priyā-* 'dear', Indg. **pri-ī-ō-*. O.Bulg. *bratŕija* *bratŕija* fem. collect. 'brothers' : Gr. *φρατρία*. Lith. *bij-aū-s* 'I am afraid' : cp. Ved. part. mid. *bhiy-ānā-s*.

Lith. *j* and Slav. *j* retained the pronunciation *ī* between vowels.

§ 147. Postconsonantal.

Lithuanian. Here a distinction must be made according as a palatal vowel (*e*, *i*) or another followed.

ī dropped out before palatal vowels already in prim. Baltic (J. Schmidt Kuhn's Ztschr. XXVI 331 f. and 339). Voc. sg. *svetē* fr. **svet-īe*, to nom. *svēczias* 'guest' fr. **svet-īa-s*. Comparat. *sald-īs-ni-s* (fr. *saldūs* 'sweet') fr. **-īes-nī-s*, formed with the comparat. suffix *-īes-* = Skr. *-yas-*. Nom. sg. *žēmē* 'earth', Lett. *feme*, Pruss. *semnē*, prim. Balt. **žem-īē*; see the coincidence for the relation of this suffix form to *-īā* in *gīria gīre* 'wood, forest' (beside *gīrē*), *žiniā žinē* 'tidings' (Lett. *fiņa*) and in O.Bulg. *zemlja*, as well as to *martī* (gen. *marczyōs*) 'bride' *patī* 'spouse'. *gerās-is* 'definite' form of the adj. *gēras* 'good', beside *jīs*. Nom. sg. *mēdis* 'tree' (gen. *mēdžio*) fr. **med-īi-s* (*ī* retained after vowels : *mō-jis*, gen. *mō-jo*, 'sign, nod'), Indg. *-īi-s* (§ 84 rem. 1); whereas *lokys* 'bear' (Lett. *lāzis*) with *-ys* fr. **-īi-s* like Goth. *hairdeis* fr. **χirđ-īi-z*; i. e. we have here a manifestation of double suffixes *-īo-* and *-īi-*, respectively *-īi-* and *-īi-* (§ 120), which in Baltic were brought into relation in the nom. sg. with the varying position of the word-accent.

Postconsonantal *ī* remained longer before other vowels than before *ě*, *ĕ*. It softened the preceding consonants and then mostly disappeared in this palatalisation, so that the *ī*, which is now-a-days written between consonants and following vowels, is simply to be regarded as a sign of the softened pronunciation of the consonant. This softening is more intensive in the south-eastern dialects than in Pruss. Lithuania. *spiáuju* 'I spit' : cp. Gr. πῦθω fr. *(σ)πιῦ-ιω (§ 131). *siū-ta-s* 'sewn' : Skr. *syū-tá-s*. Gen. sg. *pikio* (*piki-s* m. 'pitch'), st. *pikia-*, orig. **piq-īo-* : cp. Gr. *πίσσα* fr. **πικ-ια*. *ariū* 'I plough' : O.Bulg. *orja*. **tī-*, **dī-* became *czī-*, *dži-* i. e. softened *tš*, *dž*, e. g. gen. sg. *tĕczio* fr. **tetīō* (*tĕti-s* 'father'), *mĕdžio* fr. **medīō* (*mĕdi-s* 'tree'); this affection is not old; *tī*, *dī* occur still in the dialect of Memel and are pronounced similarly to softened *k*, *g* etc. Whilst Indg. **neu-īo-s* 'new' (Skr. *návyā-s* 'new') became *naūjas naūjes*, Indg. **greu-īo-* (Skr. *kravyā-m* 'raw meat, carrion') became *kraūjas kraūjes* (cp. Pruss. Vocab. *crauyo*).

ī remained in Slav. after *p*, *b*, *v*, *m*, but in a part of the Slav. languages (amongst which O.Bulg.) a soft *l* was developed. O.Bulg. *pljuti* 'to spit' fr. prim. Slav. *(s)*piū-ti* : Lith. *spiáu-ti*. Indic. pres. 1. sg. *zoblja* 2. sg. *zoblješī* etc., inf. *zobati* 'to eat'. Fem. *zemlja* 'earth' : cp. Lith. *žėmė*.

ī palatalised *l*, *r*, *n*, and then disappeared (as in Lith.). *orja* 'I plough' : Lith. *ariū*. *tĭlja* 'ground, pavement' : cp. Lith. pl. *tĭlės* 'foot-boards in a small boat' (§ 304). *vonja* 'smell' fr. orig. **anīā* (§ 666, 1) fr. rt. *an-* 'exhale'. The softened consonants are represented in manuscripts by *r̂*, *l̂*, *n̂* or *rĵ*, *lĵ*, *nĵ* or are simply written *r*, *l*, *n*, e. g. *volā*, *voljā* and *volā* beside *volja* acc. of *volja* f. 'will, wish', *more* beside *morje* 'sea'.

Prim. Slav. *tī*, *dī* (= older *tĭ*, *dĭ* and *tiĭ*, *diĭ*) became *št*, *žl* in O.Bulg. Pres. 1. sg. *meštā* 2. sg. *mešteši* etc. fr. **metīā* **metĭeši*, inf. *metati* 'to throw'. *mežda* 'boundary' fr. **medīā* : Skr. *mādhyā*. The same sound-combinations arose from *stī*, *zdī*. *tlūšta* 'pinguedo' fr. **tlūstīā* (more correctly **tĭlstīā* § 302) from *tlūstū* 'pinguis'. *za-gvožda*, 'I nail fast' fr. **za-gvozdiā*, from *gvozdi* 'nail'. When an *r* or *v* stood between *t*, *d* and the

following *ī*, it did not prevent this process of assimilation. *sū-mostrja* 'I look, consider' fr. **-motr-īa*, inf. *sū-motriti*. Adj. neut. *būždrje* 'vigilant' fr. **būl-īe*. *u-mrīštolja* 'I kill' (part. pret. pass. *u-mrīštoljenū*) fr. **u-mrītviā* (for the interpolated *l* s. p. 132), inf. *u-mrītviiti*. The form *tlūšta* corresponded to *ostrja* 'acuo' fr. **ostriā*, inf. *ostriti*, derived from *ostrū* 'sharp', the *t* of which was excrescent (§ 545).

Rem. 1. In the phonetic explanation of this influence of *ī* on a preceding *t* or *d*, and consonant-groups containing them, we must start from *zdī*, *sīi*, *striī*. The treatment of these prim. Slav. combinations in the Slav. dialects shows that the whole combination preceding the *ī* was first of all softened. There arose: **gvoz'd'īā*, **tūs't'īā*, **ost'r'īā* ('indicating the softening'); *ī* after *t'*, *d'* in the first two forms then became a palatal spirant (*χ'* voiceless, *γ'* voiced): **gvoz'd'γ'ā*, **tūs't'χ'ā* (pronounce *d'γ'* and *t'χ'* like Russ. *ДБ* and *ТБ*). In O.Bulg. specially **ost'r'īā* became *ostrja*, and **gvoz'd'γ'ā*, **tūs't'χ'ā* became first **gvoz'd'zā*, **tlūs't'sā* (pronounce *d'z* and *t's* like Polish *dź* and *ć*), then **gvoz'd'žā*, *tlūš't'sā*¹⁾ and lastly *gvoz'žā*, *tlūš't'a* (cp. below for *št'* fr. **skī*).

Analogously **mediā*, **melīā* became in prim. Slav. **med'īā*, **mel'īā*, and then **med'γ'ā*, **mel'χ'ā*. Hence specially in O.Bulg. through anticipation of the spirant **mey'd'γ'ā*, **meχ't'χ'ā*, further **mez'd'zā*, **mes't'sā* — **mež-āžā*, **mešt'sā* — *mež'd'a*, *mešt'a*.

The O.Bulg. forms *sū-mostrja*, *u-mrīštolja*, *būždrje* were also prepared for already in prim. Slav. in so far as *ī* had softened the whole combinations *tr*, *tv*, *dr*. But it must here be observed that the *š* and *ž* depending on the anticipation of the palatalism are not always written in the monuments, e. g. *sū-motr(j)enije* beside *sū-mostr(j)enije* n. 'consideration' (Miklosich Vergl. Gramm. I² 220). We do not decide as to how this fluctuating orthography is to be judged.

That the O.Bulg. combinations *žd* and *št* were spoken soft (*dž'*, *št'*) follows from such spellings as *nadeždē* (*ē* sign for *ja*) beside *nadežda* 'hope', *sqštju* beside *sqštn* 'ōvri' dat. sg. of the part. sy. 'ōv' met with in most monuments. Cp. rem. 4.

From prim. Slav. *kī*, *gī* (mostly = Indg. *qī*, *gī*, *ghī*, § 461) arose in prim. Slav. *č* (i. e. *tš*), *dž*, the latter was weakened to *ž* in O.Bulg. *pri-tūča* 'comparison' fr. **-tūkīā*. *lūžī* 'mendacious' fr. **lūgī*: OHG. *lukki* 'mendacious' (prim. Germ. st. **luzīa-*); *lūžā* 'mentior' fr. **lūgīā*, inf. *lūgati*.

Analogously *skī* became *sč* i. e. *stš*, hence by assimilation

1) *ž*, *š* are the softened *ž*, *š*. Cp. Ar. *ž* and *š* §§ 20. 21. 396 and elsewhere.

of the sibilants *štš*, further historic *št* (more correctly *št*, cp. rem. 1). *ištq išteši* etc. fr. **iskǰq*, inf. *iskati* 'to seek'.

Rem. 2. Cp. *vūšleti* 'to begin' fr. **vūšcǰti* = **vūz + cǰti*. Further on account of the O.Bulg. change of *štš* to *št*, the loc. sg. *člověčistě* beside *člověčiscě* from nom. *člověčiskū* 'human' and inf. *istělitī* beside *is-cǰlitī* 'to heal' (*st* fr. *sts*) are instructive.

Beside this treatment of prim. Slav. *kǰ*, *gǰ* there is also a change of them to *c* (i. e. *ts*) and *dz*, the latter was weakened to *z* in O.Bulg. in the beginning of the literary period (Miklosich Vergl. Gramm. I² 251 ff.). Nom. sg. in *-ičī m.*, *-ice n.*, *-ica f.*, e. g. *junīčī* 'young bullock' fr. **jūnīkǰǰ*, *sřidīce* 'heart' fr. **sřidīkǰje*, *ovīca* 'ovis' fr. **ovīkǰā*. Neut. *lice* (gen. *lica*) 'face' fr. **likǰe*. Fem. *stīza* 'way' fr. **stīgǰā*. The treatment here in question took place at a later period of the prim. Slav. language than the one above, viz.: at the same time when the instr. sg. **takēmī* (O.Bulg. *takū* 'talīs') became *tacēmī* (§§ 84. 462). Therefore a **jūnīkǰǰ* was only formed to **jūnīkū* and an **ovīkǰā* to **ovīka* after the law, whereby *kǰ* became *č*, had already ceased to operate. The voc. *junīče* still belongs to **jūnīkū* (cp. *vlūče* : *vlūkū*), so too *junīči* 'taurinus', *ovīči* 'ovinus' are also directly to be referred to **jūnīkū*, **ovīka* ¹⁾.

Prim. Slav. *sǰ*, *zǰ* = Indg. *kǰ*, *gǰ*, *ghǰ* (§ 412) became already in prim. Slav. *š*, *ž*. O.Bulg. pres. *pišq pišeši* etc. (inf. *pīsatī* 'to write') fr. **pisǰq* **pisǰeši*, rt. *peǰk-* 'to cut, cut straight'. *žujq* and **žīvq* 'I chew' fr. **zǰū-ǰq* and **zǰīvq* **zǰīvq* (§ 52), the latter = OHG. *chiuwu* from rt. *ǰja^xu-*. *ližq ližeši* etc. (inf. *lizatī* 'to lick') = Lith. *lėžiū* 'I lick', prim. f. **leǰh-ǰō*.

ǰ with a preceding Indg. *s* became *š* in prim. Slav. *šiti* 'to sew' fr. **sǰiti*, **sǰyti* = Lith. *siūti* 'to sew' (§ 60). Adj. *naši* 'noster', to gen. *nasū* 'nostri' (fr. **nas-sū*). Part. neut. *byšašte-je* 'τὸ μέλλον', to an obsolete fut. indic. **by-šq* : Lith. *bū-siu* 'I shall be'. Part. pf. gen. sg. masc. *nesūša* (indic. pres. *nesq* 'I carry') : Lith. *nėsz-us-io*, cp. Goth. nom. pl. *bēr-us-jōs* 'parents' ('those who have brought forth').

1) No direct historic connexion, consequently, exists between *junīci* and Lith. *jaunikis*, gen. *jaunikio* 'bride-groom' (properly 'juvenculus') in spite of their similar suffix formation.

Rem. 3. In those cases where Indg. *s* had passed into *ch* in prim. Slav., *š* is not to be traced back directly to *s*_i, but first of all to *ch*_i (cp. *snūšiniū* 'like a daughter-in-law' adj. fr. *snūchinū* from *snūcha* 'nurus': Skr. *snuśā*, Indg. **snuśā*). Cp. § 588, 2. 3.

These affections of prim. Slav. *s* (= Indg. *k̃*, *s*) and *z* (= Indg. *ǵ*, *ǵh*), caused by *i*, took place also when an *l* or *n* stood between them. O.Bulg. *mysljā* : inf. *mysliti* 'to think'. *blažnjā* : inf. *blazniti* 'to lead astray'. Here *i* first palatalised *l*, *n* and thus extended its influence to *s*, *z*, but disappeared in the softened *l*, *n*, according to the remarks made above under *ri*, *li*, *ni*. Cp. *ostrjā* (inf. *ostriti*) fr. **ostrjā* above, rem. 1. *mysljā* : *pišā*, *nesūša* = *ostrjā* : *tlūšta*.

Rem. 4. That O.Bulg. *č*, *ž* = orig. *q̃i*, *ǵi*, *ǵh̃i*; *c*, *dz* = orig. *q̃i*, *ǵi*, *ǵh̃i*; *š*, *ž* = orig. *k̃i*, *ǵi*, *ǵh̃i* and *s̃* = orig. *s̃i* were spoken soft, follows from the spellings with a following *j*, found in most monuments, as *māžju* beside *māžu* dat. sg. of *māži* 'man' (st. *māže*- fr. **māǵiē*-), *dušjā* beside *dušā* acc. sg. of *duša* 'soul'. Cp. rem. 1 extr.

§ 148. Antec consonantal and finally.

Indg. *e*_i = Lith. *ei* and *ē*, Slav. *i*. Inf. Lith. *eĩ-ti*, O.Bulg. *i-ti* 'to go' from rt. *e*_i-. Lith. *žė-mà* O.Bulg. *zi-ma* f. 'winter': Gr. *χεῖμα*. S. § 68.

Indg. *oi* and *ai* = Lith. *ai* and *ė*, Slav. *ě* (initially *i*, finally *ě* and *i*). Lith. *snėga-s* O.Bulg. *sněgŭ* 'snow': Goth. *snáivs*, cpf. **snoigho-s*. Lith. *v-ėna-s* O.Bulg. *inŭ* 'unus': O.Lat. *oino-s*. Lith. *tė* O.Bulg. *ti* 'the' nom. pl.: Gr. *τοί*. Lith. *āt-laika-s* O.Bulg. *otŭ-lėkŭ* 'remnant': Gr. *λοιμός*-s. Lith. *pá-saiti-s* m. 'binding thong' *sėta-s* 'cord', O.Bulg. *sėti* f. 'cord', rt. *sai*- 'bind'. Nom. du. fem. Lith. *tė-dvi* ('the two') O.Bulg. *tě* from Indg. st. **ta*- 'the': Skr. *té*, Indg. **tái*. S. §§ 84. 100.

Final Indg. *-ōi* retained the *ō* down to the Lith. language period, hence Lith. dat. sg. *vilkui* 'to a wolf', Gr. *λύκῳ* (§ 664, 4). Whilst the instr. pl. *vilkais* = Skr. *vykaiṣ* presupposes the change of *ōi* to *oi* in an earlier period; s. § 615.

Loss of *i* in the primitive Indg. period.

§ 149. *i* after an initial consonant has frequently been dropped in the different Indg. languages, without its loss being

able to be explained by the sound-laws of the languages in question. E. g. from rt. *sīa^xu-* 'sew', Skr. *sū-tra-m* 'yarn, string', Lat. *suō sūtu-s*, OHG. *sou-m* O.Icel. *sau-m-r m.* 'hemmed edge, seam' beside Skr. *syū-tā-* 'sewn', OHG. *siuwan* 'to sew', *siut* 'seam'. Upon this Osthoff bases his neat conjecture (Morph. Unt. IV 19) that the first *ī* in pres. forms like **sīū-īō* 'I sew' **spiū-īō* 'I spit' disappeared by dissimilation already in the Indg. period, so that now **sū-īō* stood beside **sīū-to-s* (part.). *sīū-* was then transferred by analogy to pres. forms also, hence e. g. O.Bulg. *šijā* i. e. **siy-īā* after forms like inf. *šiti* i. e. **siy-tī* (§ 147), and vice versa *sū* to non-pres. forms, hence e. g. Skr. *sū-tra-m* instead of regular **syū-tra-m*.

§ 150. According to Joh. Schmidt (Kuhn's Ztschr. XXVII 305. 369 ff.) and W. Schulze (ibid. 420 ff.) anteconsonantal *ī* was dropped after long vowels in the Indg. prim. language. Nom. sg. **rēs* = Skr. *rās* 'possessions, treasure' Lat. *rēs* 'possessions, thing' fr. **rēi-s* : cp. Skr. nom.pl. *rāy-as*. Indg. **pō-* fr. **pōi-* 'drink' in Skr. inf. *pā-tu-m*, Gr. *πῶ-μα* 'potion', Lat. *pō-tu-s* *pō-culu-m*, Lith. *pū'-ta* 'drinking bout': cp. Skr. *pāy-ana-m* 'watering of cattle' *pi-tā-* 'drunk', Gr. *πί-νω* 'I drink'. Indg. **dhēlu-s* = Skr. *dhārú-ś* 'sucking' Gr. *θῆλυ-ς* 'suckling, female' fr. **dhēi-lu-s* : cp. Skr. *dhēnā* 'milk-cow'. Gr. Dor. *τάρᾱουαι* 'I am bereft, want', O.Ir. *tāid* 'thief' (prim. f. **tati-*), O.Bulg. *taŭ* 'thief' fr. **taī-* : cp. Skr. *stē-ná-s* beside *stayú-ś* *tayu-ś* 'thief'.

Our assumption of *-ōis* as the ending of the instr. pl. of *o*-stems, and of **ēis* thou wentest' (Skr. *aiś*) etc. for the prim. period (§§ 69. 85. 101) would not contradict these combinations. In these latter cases we should only have to assign the first appearance of the monosyllabic form an older dissyllabic form (*-ōis* perhaps fr. *-o-a^xis*; **ēis* fr. **é eis*) to a later period of the prim. language, in which the sound-law, whereby **rēis* became **rēs*, no longer operated.

Nevertheless the above hypothesis still requires further support before it can be set up in any degree as certain. Cp. also Hübschmann Das idg. Vocalsystem p. 24 and elsewhere.

Indg. *u*.

The prim. Indg. period.

§ 151. Initial *u* before sonants and consonantal liquids. Pres. **uégħ-ō* 'veho': Skr. *vāhāmi*, Gr. Pamph. *ἔχω* Ion. Att. *ὄχο-ς*, Lat. *vehō*, O.Ir. *fēn* 'plaustrum' fr. **fegn* (§ 527), Goth. *ga-viga* 'I move', Lith. *vežù* O.Bulg. *vezq* 'veho'. Rt. **ueq-* 'speak': Skr. *vācas-* n. 'speech', Gr. *ἔπος*, Lat. *vocāre*, O.Ir. *iar-mi-foig* 'he asks', OHG. *gi-wahanen* 'to remember, mention', Pruss. *en-wackēmai* 'we call to'. Rt. *ueid-* 'see, know': Skr. *vēda* 'he knows', Arm. *gitem* 'I know', Gr. *φοῖδε*, Lat. *videō*, O.Ir. *ad-fiadat* 'narrant', Goth. *vāit* 'he knows', Lith. *vėida-s* 'face, countenance', O.Bulg. *vidēti* 'to see'. **uġ-nā* 'wool': Skr. *ūrṇā* 'wool', Lat. *lana* fr. **ulānā*, cp. Gr. *ὄλο-ς* 'crisp' (§§ 157. 204. 306). Partic. **urē-to-* 'decided, settled': Av. **rva-ta-* n. 'determining, command' fr. **urā-ta-* (§ 157), Gr. *ῥητός* *ῥητός* 'specified, settled' *ῥητοῖα* (El. *ῥατοῖα* § 72) *ῥητοῖα* 'agreement, saying'.

§ 152. Intersonantal. Pres. 3. sg. **sréu-e-ti* 'flows': Skr. *srāv-a-ti* Gr. *ρέ(ῥ)-ει*; Skr. *srāva-s* 'river, efflux', Gr. *ῥοφά ῥοή* 'river, flood', Lith. *srav-à* 'issue of blood' *sravėti* 'to flow gently', O.Bulg. *o-strov-ŭ* 'island' (properly 'flown round'). **neu-o-s* 'new': Skr. *nāva-s*, Gr. *νίφο-ς*, Lat. *novo-s*, O.Bulg. *novŭ*. Loc. sg. Skr. *div-ī*, Gr. *Δι-ί*, Indg. **diu-i*. Skr. *āvi-ṣ* Gr. *ὄ(ῥ)-ς* Lat. *ovi-s* 'sheep', Goth. *avēpi* n. 'herd of sheep', Lith. *avi-s* O.Bulg. *ovŭ-ca* 'sheep'. **gŭ-uo-s* 'quick, alive': Skr. *jivā-s*, Lat. *vīvo-s*, Cymr. *byw*, Goth. *qiva-* (nom. sg. *qius*), Lith. *gýva-s* O.Bulg. *živŭ*. Nom. pl. of *eu-* stems in *-eu-es*: Skr. *sūnāv-as* O.Bulg. *synov-e* 'sons', Gr. *ῥδέ(ῥ)-ες* 'suaves'. Suffix of the pf. part. act.: Skr. *babhū-vān*, Gr. *πεqv-(ῥ)ώς*, Lith. *bū-vęs* O.Bulg. *by-vŭ* from rt. *bheu-* 'become'. Personal ending of the 1. du.: Skr. *vāhā-vas*, Lith. *vėža-va* O.Bulg. *veze-vě* from rt. *uegh-* 'vehere'.

Skr. Ved. pf. part. act. *jaghan-vān* (beside the st. form *jaghn-uṣ-*) 'having struck' fr. Indg. **ghe-ghu-uós* (§§ 225. 229), *cakr-vān* (beside *cakr-uṣ-*) 'having made' fr. Indg. **qe-qr-uós*.

**pŕ-uo-s* 'the front, earlier' : Skr. *pūr-va-s*, Gr. Dor. *πρᾶν* fr. **πρωFά-v* (Ion. Att. *πρῶην*), s. § 306. **neun* 'nine', **neun-tó-* 'ninth', **neun-ti-* 'the number nine' : Skr. *náva navatí-ṣ*, Gr. *ἐννέ(F)α* (compounded of **ἐν véfa* 'nine in all, fully nine', s. Wackernagel Kuhn's Ztschr. XXVIII 132 ff.), Lat. *novem* (-em for -en after *septem, decem*), O.Ir. *nōi n-* Cymr. Corn. *naw*, Goth. *niun niunda*, Lith. *deviñta-s*, O.Bulg. *devētū devētī* (Lith. Slav. initial *de-* after the numeral for ten *desziñta-s, desetū*; the regular form would be Lith. **naviñta-s*, O.Bulg. **novētū*), cp. §§ 224. 233.

u as glide after *u*. Examples s. §§ 117. 153.

§ 153. Postconsonantal. St. **duo-* 'two', **dui-* (in **dui-s* 'twice' and in compounds): Skr. *dvā dvāū, dvi-*, Gr. *δύ-δεκα, δι-*, Lat. *bi-*, O.Ir. *dā*, Goth. *tvái*, Lith. *dù* (masc., fr. **duū'*, § 184) *dvì* (fem.), O.Bulg. *dva*. Nom. sg. **snēsō(r)* 'sister' : Skr. *svāsā*, Lat. *soror* (*so-* from **sue-* § 172, 3), Cymr. *chwuer*, Goth. *svistar*, Pruss. *swestr-o*, Lith. *sesū*, O.Bulg. *sestr-a* (for the -t- in Germ. Pruss. and Slav. s. §§ 580. 585, 2). **ek-uo-s* 'horse', fem. **ek-ua* : Skr. *āśva-s āśvā*, Gr. *ἵππο-ς*, Lat. *equo-s*, Gall. *epo-* O.Ir. *ech*, Goth. *aihva-* (in *aihva-tundi* fem. 'πάρος'), Lith. *aszvā*. St. **getuer-* 'four' : Skr. *catvār-as*, Gr. Ion. *τέσσαρ-ες*, Lat. *quattuor*, O.Ir. *cethir* O.Cymr. *petguar* Mod.Cymr. *pedwar* Corn. *peswar* Bret. *pevar*, Goth. *fidvōr*, Lith. *ketverì* 'by fours', O.Bulg. distrib. *četvero*. Part. pf. Skr. *vid-vān*, Gr. *εἰδ-(F)ώς* from rt. *ueid-* 'see, know'. Suffix -*tuō-*, -*tuā-* : Skr. *priya-tvā-m* 'the being loved', Goth. *frija-þva* 'love', O.Bulg. *mrī-tvū* 'mortuus' *goni-tva* 'persecution'. St. **per-uen-* : Skr. *pārvan-* n. 'knot, node', Gr. *ἀ-πέριων* 'boundless' fr. **ἀ-περFων*, cp. *πεῖραρ*, pl. Lesb. *πέρ-ρατα* (§ 166). **daiuér-* 'husband's brother' : Skr. *dēvár-*, Arm. *taigr* etc., s. § 95; loc. pl. Skr. *dēvṣū*, Indg. **daiuṣ-su*. Gr. *αἰ(F)ών* 'time' *αἰFεί* 'ever', Lat. *aevo-m*, O.Ir. *aes ois* gen. *aesa* (Cymr. *oes*) 'age' fr. **aiues-tu-s*, Goth. *divs* 'time'.

uy stood beside *u* on the same principles as Indg. *i* beside *ī* (s. § 120).

First after initial consonants. **duuó* beside **duó* 'two' : Skr. Ved. *duvā*, Gr. *δύ(F)ω*, Lat. *du(v)o*. From rt. *ghaxu-* 'call' partly *ghuṣ-*, and partly *ghu-* as weak grade form (§ 312):

Skr. Ved. 1. pl. opt. *huv-ē-ma* Av. 3. sg. indic. *zuv-ayē-iti*, O.Bulg. inf. *zŭv-ati* beside 3. sg. indic. Skr. *hv-āya-ti* Av. *zb-ayē-iti*, nominal st. Skr. *hv-atar-* Av. *zb-atar-* 'shouter, panegyrist', O.Bulg. *zv-onŭ* 'sound, noise', *zv-atelŭ* 'crier'.

After initial *i* or *j* and initial double consonants only *uy*. St. **iuy-en-* or **juuy-en-* 'young', **iuy-ŋ-kós* or **juuy-ŋ-kós* 'juvenile' (cp. Comparat. Skr. *yáv-īyas-*) : Skr. *yúv-an-* *yuv-a-śái-s*, Lat. *juv-en-is* *juv-en-cu-s*, Goth. *juggs* fr. prim. Germ. **iuy-un-ga-s*. Antesonantal st. form **bhruy-* 'brow' : Skr. gen. *bhruv-ás*, Gr. gen. *ὀφρύ(φ)-ος*, O.Bulg. nom. *brŭv-ŭ*.

Medial *uy* after long syllables, especially after double consonants. Prim. Indg. is the contrast, e. g. between Skr. 3. pl. *aś-nuv-ánti* (1. sg. *aś-nó-mi* 'I attain'), Gr. *ἀγ-νύ(φ)-ᾶσι* (1. sg. *ἄγ-νῦ-μι* 'I break') on the one hand and Skr. 3. pl. *su-nv-ánti* (1. sg. *su-nó-mi* 'I press the soma-juice out') 3. sg. *ṛ-nv-á-ti* 'puts in motion', Gr. Att. *φθίνω* 'I waste away, decay' fr. **φθι-νφ-ω* (cp. *φθι-νύ-θω*), Goth. *rinna* 'I run' fr. **ri-nŷ-ō* (§ 180) = Skr. *ri-nv-a-mi* 'I let flow, run' (not found) on the other, cp. § 313.

§ 154. Anteconsonantal medially. Very frequent after *a-*, *e-* and *o-*vowels, with which *u* formed diphthongs, e. g. st. **aug-men-* (rt. *aug-* 'grow') : Skr. *ōjmán-* m. 'strength, power', Lat. *augmen*, Lith. *augmũ* (gen. *augmeñs*) 'growth, excrescence'. **dǵēu-s* 'sky' : Skr. *dyāuś*, Gr. *Ζεύς*. Cp. §§ 61—108.

The treatment of *u* before *i* was often different from that before other consonants. Whilst e. g. the *eu* in Indg. **ney-īo-s*, a further formation of **neyo-s* (Skr. *náva-s* etc.), appears developed in the same manner as before other consonants in Lith. *naũja-s* and Goth. *niuji-s*, Skr. *návya-s* shows the heterosyllabic form of Indg. *eu*. Analogously in Gr. e. g. *ἐκατόμ-βοιο-ς* fr. **-βοφ-ιο-ς* (cp. Skr. *gávya-s* 'bovarius') in contrast e. g. to *βοοί*. The manner of dividing the syllables before *i* therefore took different ways : Lith. *naũjas* represents a **ney|īos*, Skr. *návya-s* a **ne|uīos*. Cp. also Skr. *gávya-* with Av. *gaoya-* (§ 160).

A diphthong was frequently not formed before nasals and liquids in cases where it might be expected, e. g. Skr. *vavnúś-* beside *maghón-* (§ 160), Gr. *ἐφάγη* (*ἐρράγη*) beside (Lesb.)

εὐράγη (§ 167). The various modes of syllabic formation were also here the criterion.

Anteconsonantal *y* seldom occurred after *i*-vowels from the very beginning e. g. Skr. *div-yá*- 'celestial'; Skr. *pī-vn*- 'fat', weak antevocalic st. form beside *pī-van*-, e. g. gen. pl. *pī-vn-am*; Av. *jīvya*- 'belonging to life'. Diphthongs were only formed in Germ., e. g. Goth. *ga-giunan* 'to come to life again' from st. *giva*-, which, of course, is not an old inherited formation, cp. §§ 179. 181.

§ 155. Interconsonantal *y* was not, at it seems, permitted in prim. Indg. E. g. antesonantal **getur*- ('four') for **getur*- (Skr. acc. *catúr-as*) beside anteconsonantal **getur*- (Gr. Hom. τέτρασι τέταυρος fr. τετρα-σι -το-ς, Lith. *ketvīrta-s*). Cp. also prim. Ar. **atharun*- ('fire priest') for **atharun*- (Av. dat. sg. *aṇarun-ē*) beside **atharua*- = **atharuy*- (Skr. dat. abl. pl. *átharva-bhyas*), Skr. instr. *áyun-ā* ('life') beside Gr. αἰ(φ)έν αἰ(φ)ών etc. (The author Morph. Unt. II 189 ff).

Rem. I. therefore, conjecture that Skr. instr. sg. *devr-ā* (fr. **daiyér*- 'husband's brother') does not represent an Indg. **daiyur*-, but a special Sanskrit new formation **daiyér*-, **daiyur*- and **daiyur*- may have existed side by side of each other in Prim. Indg. The spondaic form *δαέπων*, Ilias Ω 769, can equally well be read *δαυρών* (fr. **daiyepw*) as *δαυρών*, conjectured by Ebel.

§ 156. Finally. *y* only occurred as an absolute final in the second component of diphthongs. E. g. voc. Skr. *sūnō* Lith. *sūnaũ* O.Bulg. *synu* 'O son', Indg. **sūney* or **sūnoy*; loc. Skr. *sūndū* O.Bulg. *synu* 'in filio', Umhr. *manuv-e* 'in manu', Indg. **sūnōy* (cp. § 85). Its treatment in the individual languages was almost entirely the same as that of anteconsonantal diphthongs. *y*, when conditionally final, also stood after consonants, perhaps **médhy esti* = Skr. *mádhv asti* 'mel est'. Cp. § 645, 2.

Aryan.

§ 157. Initially. Skr. *váyam* Av. *vaēm* O.Pers. *vayam* 'we': Goth. *weis*. Skr. *vīś*- Av. *vīs*- O.Pers. *vīš*- 'clan': O.Bulg. *vīs-ī* 'vicus'. Skr. Av. O.Pers. *vā* 'or': Lat. *-ve*.

Initial *u* was lost before *u* and *ū* in Skr. *urū-ś* 'broad' fr. **u_rur-u-ś*, prim. f. **u_rrr-u-s* (§ 290). *ūrṇā* 'wool' fr. **u_rṇā*, Indg. **u_rṇā* (§§ 151. 306).

ur- was transposed in Av. with *u*-prothesis. **rvāta- n.* 'decree, command': Gr. *ῥοητό-ς* 'decreed'. Part. pres. mid. **rvāzema-* 'powerful' (*z* = *ḍ*) to Skr. *vrādh-* 'to be great, powerful'. Cp. §§ 260. 624.

§ 158. Intersonantal. 3. sg. impf. Skr. *á-bhav-a-t* Av. *bav-a-ḥ* O.Pers. *a-bav-a*, Indg. **é-bhe_u-e-t* from *bhe_u-* 'become, be'. Nom. pl. Skr. *bāhuv-as* Av. *bāzav-ō* 'arms': Gr. *πήχε-ες* *πήχεις* fr. **πηχε_f-ες*.

Part. pf. act. Skr. *vavan-vān* Av. *vavan-vā* 'victorious' (antersonantal weak stem form Skr. *vavn-úṣ-* Av. *vaon-uṣ-*) fr. orig. **ue-u_u-uós*; Skr. *jagan-vān* 'having come' (anteson. weak st. *jagm-úṣ-*) fr. Indg. **ge-g_um-uós*, see §§ 225. 229. Skr. *ṇ-vānt-* 'rich in men'. Skr. Av. suffix form *-vat-* fr. Indg. *-u_ut-*, e. g. in loc. pl. Skr. *viśá-vat-su* Av. *vīša-vasū*, loc. pl. from *viśá-vant-* *vīša-vant-* 'poisonous' (cp. Gr. *ῥόεις* 'rusty'). 1. sg. impf. Skr. *ákṣṇav-am* O.Pers. *akūnav-am* (read *ū* as *u*, cp. § 228) 'I made', fr. orig. **é-q_r-ne_u-ṇ(m)*.

u_u, with *u* as glide. Ved. *suvá-* Av. *huva-* (beside *svá-*, *xwa-*) 'suus'. Ved. *tuvá_m* Av. Gāṇ. *tu_vēm* (beside Skr. *tvám*) 'thou'. Gen. sg. Skr. *bhruv-ás*: Gr. *ὀφρύ-ος* 'of an eye-brow'. 3. pl. *aśnuv-ánti*, like Gr. *ἀγνύ-ασι*. Cp. § 159.

-aom is written in Av. for *-avem* = prim. Ar. *-a_uam*, e. g. *ker^anaom* = Skr. *ákṣṇav-am* 'I made'. In like manner *drūm* for *druvem* = Skr. *dhruvā-m* 'firmum'. Cp. Bartholomae Handb. § 95.

§ 159. Postconsonantal. Skr. *svá-* Av. *xwa-* 'suus': Gr. *ῥός ὅς*, Indg. **su_u-s*. Skr. *hv-atar-* Av. *zb-atar-* 'crier': O.Bulg. *zv-atelī*, from rt. *gha_u-*. Skr. *catvār-as* Av. *capwār-ō* 'four': Goth. *fidvōr*. Skr. *kṣṇv-ánti* Av. *ker^anvanti* 'they make', orig. **q_r-nu-ḥti*. Skr. *sárva-* Av. *haurva-* O.Pers. *harūva-* (read *harva-*, s. below) 'all': Gr. *ὅλος ὅλος* fr. **ó_lfo-ς*. Skr. *dēvā-s* 'god', Av. *daeva-* 'devil': Pruss. *deiwa-s* 'god', Indg. **de_umo-s*.

u often interchanged with *uṣ* in Ved. (cp. §§ 120. 125. 153). In the initial syllable, e. g. *duḍ* and *duvḍ* like Gr. *δού-δεα* and *δύω*; *śván-* and *śuván-* 'dog', cp. Av. *span-* Lith. nom. *szũ* fr. **szũũ* and Gr. *κύων κύον*. As this interchange dates back to the prim. Indg. language, *uṣ*, after a long syllable in the same word, may perhaps be regarded everywhere as an old inherited form, e. g. *rakṣas-tuvá-m* 'damage' beside *dēva-tvā-m* 'divinity'; part. pf. *dāś-uvān* 'doing homage' beside *vid-vān* 'knowing'; 2. pl. mid. impf. *dyug-dhuvam* (*yuṣ-* 'yoke, harness') beside *ākrṇu-dhvam* (*kar-* 'make'). In the classical language *-u-* for the most part only appears, e. g. only *-tva-*, *-dhvam*. The old stage *uṣ* remained, e. g. in gen. *bhuṣ-as* from *bhū-* 'world', *bhruv-as* from *bhrū-* 'brow', and in non-initial syllables in 3. pl. in *-nuv-anti* after consonants beside *-nv-anti* after sonants, aor. *a-su-sruv-a-t* 'flowed' from *sraṣ-sru-* (cp. § 313). In the popular dialects *uṣ* frequently made its appearance again where the classical Skr. only had *u*. We may have old forms, e. g. in Pāli *tuvam* (beside *taṃ* = Skr. *tvām*) 'thee'; nom. acc. *duvē* (Prākr. written *duē* and *duvē*) beside *dvē* 'two'; *suvān-a-* beside nom. *sā* 'dog'.

Various assimilations took place in Iranian in the combination consonant + *u*. For O.Pers. we must premise that *uv* or *ūv* was written for *v* after consonants, e. g. *puvām* for *pṛām* = Skr. *tvām* 'thee', *harūva-* for *harva-* = Skr. *sārva-* 'all'; cp. the orthography *-iy-* and *-īy-* for *-y-* p. 116.

Indg. *kyu* (= Skr. *śv*) became Iran. *sp*. Av. O.Pers. *aspa-*: Skr. *āśva-* 'horse', Indg. **ekyo-*. Av. *span-*: Skr. *śván-* 'hound, dog', Indg. **kyon-*.

In like manner Indg. *gyu*, *ghyu* (= Skr. *jv*, *hv*) became Av. *zb*. *zb-atar-*: Skr. *hv-atar-* O.Bulg. *zv-atelī* 'crier'.

Indg. *tyu* (= Skr. *tv*) appears in Av. as *pw* (*v* was spirant), and in O.Pers. as *puv*; that the *uv* in the latter combination was a consonant, follows directly from the change of *t* into *p* (§ 473). Av. *puvām* O.Pers. *puvām*: Skr. *tvām* 'thee'. Gen. sg. Av. *xraṣw-ō*: Skr. *krátv-as* from st. *xratu-*: Skr. *krātu-* 'power, under-standing'.

Indg. *dyu*, *dhyu* (= Skr. *dv*, *dhv*), which, in prim. Iran., fell

together in *du* (§ 481), appear in Av. initially as *dv* and *ḍb* (Gāp. *db*), *b*, medially as *ḍv* and *ḍw*. Initially, *dvaēṣah-*: Skr. *dvēṣas-* n. 'bearing enmity, hatred'; *ḍbiš-*, Gāp. *d^ubiš-*: Skr. *dviṣ-* 'hate'. *bitīm*, Gāp. *d^ubitīm*: Skr. *dvitīya-m* 'secundum'). Medially, part. pf. *evīdvā*: Skr. *á-vidvān* 'not knowing, unwise'. *er^uḍwa-*: Skr. *ūrdhvá-* 'upright' (cp. §§ 288. 306). So also side by side of each other Gāp. *-dūm* (i. e. *-dvem* s. below) and late Av. *-ḍcem* = Skr. *-dhvam*, ending of 2. pl. mid. O.Pers. *dūvitiya-* 'secundus', whose *ūv* (to be read as consonant) was either *u* or spirant.

Indg. *pu* became **fw*, thence *f* in Av. Acc. sg. *āfentem* 'aquosum' fr. prim. Ar. **ap-uant-am*.

Indg. *su* (Skr. *sv*) became in Av. *xw* (init. and med.) and *ṁuh* (medially). *xwa-*: Skr. *svá-* 'suus'. *xwaxhar-*: Skr. *svásar-* 'sister'. *haraxwaiti-*: *sárasvatī* prop. name. 2. sg. imper. *baranuha*: Skr. *bhára-sva*, from Ar. *bhar-* 'bear, bring'. The pronunciation of *ṁuh*, which is mostly not sonantal, has not been determined. For *xw* and *ṁuh* in the Gāpās *hv* also occurs: *hva-* 'suus', 2. sg. imper. *gūša-hvā* 'hear'. In O.Pers. *uv* = prim. Ar. *su*. *uva-*: Av. *xwa-* Skr. *svá-* 'suus'. 2. sg. imper. *patipayauvā* 'protect thyself': cp. Skr. *bhára-sva*. Acc. sg. *harauvatim* = Skr. *sárasvatīm*. Cp. § 558, 3.

-ūm is written for *-vem* in Av. Acc. *pourum*: O.Pers. *parūvam* (read *parvām*) Skr. *pūrva-m* 'priorem'. 2. sg. imper. Gāp. *dazdūm*: Skr. *daddhvām*, from Ar. *dad-* 'give', etc. See Bartholomae Handb. § 95 a.

v in Av. is often to be read as *uv*, especially after long syllables, just as in Ved., e. g. gen. sg. read *zantuv-ō* for *zantv-ō* from *zantu-* 'district', cp. Ved. gen. *dhṛṣṇuv-ās* from *dhṛṣṇú-* 'repose'.

§ 160. Anteconsonantal medially and finally.

1) For an uncertain conjecture concerning the reason of the change *dv-* on the one hand and *db-*, *ḍb-* on the other, see Osthoff Morph. Unt. IV 371 ff.

The vowel remained in Sanskrit as *u* after *ā* (*āu*), whereas prim. Ar. *au* became *ō*. Prim. Ar. prim. Iran. *au* appears as *ao* (i. e. *aō*) or *ēu* in Av., prim. Ar. prim. Iran. *āu* remained (*āu*); prim. Ar. *au* and *āu* remained unchanged in O.Pers. (*au*, written *auv* when final, and *āu*). Skr. *drógha-* 'insult, grief', Av. *draoya-* O.Pers. *drauga* 'untruth'. Gen. sg. Skr. *krátōṣ* Av. *xrataoṣ* *xratēuṣ* from st. *krātu-* *xratu-* 'power, understanding', O.Pers. *kūrauṣ* from *kūru-* 'Cyrus'. Nom. sg. Skr. *gāū-ṣ* Av. *gāu-ṣ* 'bullock'. Loc. sg. Skr. *vāsāu* Av. *vanhāu* from st. *vāsu-* *vanhu-* 'good'. O.Pers. nom. sg. *dahyāuṣ* 'country, district' (cp. nom. pl. *dahyāv-a*), formed like Av. *bāzāuṣ* 'arm'. Cp. §§ 62. 78. 94.

In Skr. *v* is also found before consonants, viz. before *y*, *r*, *n*, e. g. *div-yā-* 'celestial', *dēvr-ā* instr. sg. from *dēvár-* 'brother-in-law', *pīvn-ām* gen. pl. from *pīvan-* 'fat', *ṛtāvn-ām* from *ṛtāvan-* 'holy, pious', *va-vn-úṣ-* weak st. form of the pf. part. act. 'triumphant', but *maghōn-ā* instr. sg. from *maghāvan-* 'distributor'. In Av. *v* only before *y* after *i*: *jīvya-* 'belonging to life'; but diphthongic in *gaoya-*: Skr. *gāvya-* 'bovinus'; *vaorāzapa-* n. 'friendliness' for **va-vrāz-apa-*; *vaonuṣ-*: Skr. *va-vn-úṣ-*; *aṣṭāun-ām*: Skr. *ṛtāvn-ām*. That diphthongisation does not appear in Skr. in cases where it was possible (cp. *vavnuṣ-* with *maghōn-ā*), depends on a different mode of forming syllables, in which other forms of the same system may have to some extent set the type (cp. *va-van-* beside *va-vn-*). Cp. § 154.

§ 161. *u* as spirant.

u seems in Skr. to have become labiodental and spirantal already in the classical period, s. Whitney Skr. Gramm. § 57. Also forms of the popular language as Pāli *dibba-* = *dirya-*, *pabbata-* = *parvata-* presuppose the change of *u* to *v* spirant.

As to whether orig. *u* also in other cases than *ṛvaṃ*, *aspa-* etc. (159) had acquired a spirantal pronunciation in Av. (the *p* in *aspa-* was developed from a spirant), we leave undecided, and refer to Hübschmann Kuhn's Ztschr. XXIV 354 f. and Bartholomae Handb. 9. 36 f.

Armenian.

§ 162. Indg. *u* appears partly as *v*, and partly as *g* fr. **gu* (cp. Italian *guastare* 'vastare', Cymr. *gweddw* 'vidua'), without the conditions for this difference of treatment being clear.

1. *v. vasn* 'on account of': Av. *vasna-* m. 'wish, intention', Gr. ἐκὼν 'voluntarily', rt. *uek-*. *kov*, gen. *kovu*, 'cow': Skr. *gav-*, Gr. βοΐ-, Indg. **gou-*. *veç* 'six': Gr. ἑξ ἑξ, Cymr. *chwech*, cp. § 589, 3.

2. *g. gorc* 'work': Gr. *ἔργον*. *gitem* 'I know': Skr. pf. *vēda*. *loganam* 'I bathe myself': Lat. *lavō*. *taigr*, gen. *taiger*, 'brother-in-law': Skr. *dēvár-*.

k(u) appears for *g(u)* after voiceless explosives and spirants. So *sk-* fr. **su-* (= orig. *kū-*, § 408) in *skesur*, gen. *skesri*, 'mother-in-law'; prim. Arm. **sues-* arose from Indg. **suek-* (cp. Goth. *swathrō*, Gr. ἐκνρά) through assimilation of *s-* to the following *k* (§ 562). Indg. **su-* and **tū-* became *k-*: *kōir*, gen. *kēr*, 'sister': Skr. *svāsar-*; *kō* 'tui' *kēz* 'tibi': Skr. *tva-*; cp. §§ 560. 360.

Greek.

§ 163. Indg. *u* was retained as *ϕ*, which was generally spoken as a vowel, not as a spirant. It was sometimes also incorrectly written *ν* and *β*. The sound remained in most dialects until far into historic times, as inscriptions show. *ϕ* first disappeared in Ion.-Att. It generally disappeared earlier medially than finally.

§ 164. Initially. Bæot. etc. *ῥίκατι* Dor. *ῥείκατι* Ion. Att. εἴκοσι 'twenty': Skr. *viśati-*, Lat. *vīginti*, O.Ir. *fiche*. Cret. *ῥίφο-ς* Bæot. etc. *ῥίσο-ς* Att. *ῖσο-ς*, probably to Skr. *viśu* adv. 'in both directions'. *ῥέτος* ἔτος 'year': Lat. *vetus* 'old', Skr. *vats-á-* 'year', O.Bulg. *vetŭchŭ* 'old'. *ῥέπος* ἔπος 'word': Skr. *vācas-*. *ῥοῖχο-ς* οἶχο-ς : Skr. *vēśá-s* 'house', Lat. *vīcus* Goth. *veihsa-* 'spot', O.Bulg. *vŭšŭ* 'village'. *ῥάστν* ἄστν 'city': Skr. *vāstu* 'seat, place', *vāstu* 'place, ground, house'. St. form *ῥαρ-ν* 'ram' in the Bæot. proper name *ῥάρων*, in *ἄρν-ός* ἄρν-ι etc., fr. orig. **ur-n-*; beside **ῥρ-ην* in *πολύ-ρρην* 'rich in sheep'. *οὔλο-ς* 'fleecy, twined' fr. **uḷno-*

through the intermediate stages **φωλνο-* **φολνο-* **φολλο-* (§ 306): Skr. *ūrṇā* 'wool' (§ 157).

Rem. The ' of *ἔλκω* 'I draw', which word can not be separated from *αὐλαξ* 'furrow' and Lith. *velkù* 'I draw', is perhaps to be explained on the ground that an attraction to *ἐλκ-* *ὀλκ-* (with ' fr. *σ-*, § 564), corresponding to Lat. *sulcu-s* and Ags. *sulh* 'plough', took place.

El. *φράτρᾱ* Att. *ῥήτρᾱ* 'covenant': Av. **rṇāta-* n. 'decree, commandment' (§ 157). In Lesb. *βρ-* fr. *φρ-*: *βρήτωρ*, to El. *φράτρᾱ*. On Att. *ῥ-*, cp. § 226.

§ 165. Intersonantal. Loc. sg. *Δι-ί* *Δί*: Skr. *div-i*, Indg. **diṃ-i* 'in the sky'. *κλέφος* *κλέος* 'glory, renown': Skr. *śrāv-as* 'renown', O.Bulg. *slovo* 'word'. Corcyr. *ρhof-αί* Hom. *ρό-αί* 'floods': Lith. *sra-v-à* 'flowing, bleeding' (nouns). Corcyr. *στονό-φισαν* (read *σ* as *σσ*) Hom. *στονόεσσαν* fem. 'lamentabilem': cp. Skr. *bāla-vatī* fem. 'robusta'. St. *στέαρ-* (*στέαρ-ος*) 'stiff fat' fr. **στηᾱτ-* (§ 611), **σιᾱ-fat-*, prim. f. **stā-μῃ-t-* (§ 233). Aor. *ἔχεα* 'I poured out' fr. **ἔ-χεφ-ῃ* (§ 233), active to *χύ-το*.

In Lesb. *υ* combined with a preceding short vowel to form a diphthong, i. e. heterosyllabic *au*, *eu*, etc. became tautosyllabic, or still more precisely: *aua* became *a^h-^ha* (cp. Sievers *Phonetik*³ 146). This also occurs in Hom. as an Aeolic peculiarity. *σεύω* 'I drive, hunt': Skr. mid. *cyāv-atē* 'moves himself, withdraws', Indg. 1. sg. act. **qiéu-ō* or **qjéu-ō*. *εὔιδον* 'I saw': Att. *εἶδον*, Skr. *ávida-m*, Indg. **é uidóm*. *αὔηρ* 'air' *αὔελλα* 'gust of wind': Ion. *ἀήρ* *ἄελλα*, to *ἄ(f)ῃμι*, Skr. *vāmi* 'I waft, blow'.

§ 166. Postconsonantal. *υf*, *ρf*, *λf* remained unchanged in some dialects until after the beginning of historic times. In Lesb. and Thess. *νν*, *ρρ*, *λλ* arose, in other didects (Ion. Bæot. Dor.) the double consonants were simplified with 'compensation-lengthening', whilst in Att. *f* was elided without compensation-lengthening. Fr. **γονφα* 'knees' (cp. Av. *zanu-a*, Lat. *genu-a*): Lesb. *γόννα*, Ion. *γούνα*, Att. *γόνα-τα*. Corcyr. *πρό-ξενφος*: Lesb. *ξέννος* Ion. *ξεῖνος* Att. *ξένος* 'foreign'. Fr. **φθα-υf-ω* 'I come first', **τι-υf-ω* 'I pay penalty' (cp. Skr. *γ-ηv-á-ti* 'puts in motion'): Ion. *φθάνω*, *τίνω*, Att. *φθάνω*, *τίνω*. Fr. Indg. stem **per-uen-*: pl. Lesb. *πέρρα-τα* Ion. *πίρα-τα* 'the ends, furthest point' *ἀ-πείρων* 'unbounded', Att.

πίρας περαίνω, to Skr. *pārvan-* 'node, knot'. Inscrp. (Thessal.?) κόρφᾶ : Ion. κόρη Dor. κώρᾶ Att. κόρη 'girl'. Fr. *ὄλφο-ς = Skr. *sārva-s* 'whole, all' : Hom. ὄλος, Att. ὅλος. With the forms having compensation-lengthening cp. § 618.

ἵμ. ἵππος, dial. ἵκκος (handed down by the grammarians; dialect unknown) : Skr. *āśva-s*, Indg. **ekho-s* 'horse'. πᾶς παντός 'complete, entire' : Skr. *śāśvant-* 'complete, entire, each' (§ 557, 4), Indg. **ku-īt-* (cp. the author's Griech. Gramm. p. 120). κκ = ἵμ also in πελεκκάω 'I hew' πέλεκκο-ν 'axe-handle' beside πέλεκυ-ς 'axe' : Skr. *paraśū-* 'axe'.

Rem. ππ beside κκ is perhaps so to be explained that the latter process of assimilation belonged to a later period than the former. On account of ἵκκο-; it would then have to be assumed that also **eku-* existed beside **ekho-*, which was not transferred to the *o*-declension until after the first appearance of the form ἵππο-ς.

τυ, δυ, θυ. Cret. τφέ (in Hesych. wrongly written τρέ) Dor. τέ Lesb. Ion.-Att. σέ 'thee' : Skr. *tvā-*. Bœot. πέτταρες Att. τέτταρες Hom. τίσσαρες etc. 'four' : Skr. *catvār-as*. Cp. § 489. Corinth. Δφεινιάς, Hom. ἔδδειςεν δέδδιμεν θεοδδής (the spellings δειδιμεν, θεουδδής are wrong), in case δφ was not still spoken in the time of Hom., Att. δεινός δέδοικα, from rt. *dhēi-* 'fear'. δώ(δεκα) δί-ς : Skr. *dvā dvī-*. ὀρθός : Skr. *ūrdhvā-s*, Indg. **ḡdhvō-s* 'upright' (§ 306).

ρυ, θυ. νήπιος (beside νη-πύ-τιο-ς 'unintelligent, under age') fr. **νη-πφ-ιο-ς*. ὑπερ-φίαλο-ς 'overbearing' fr. **ὑπερ-φφ-ιαλο-ς*, just as Lat. *superbia* fr. **super-fu-ia*, from rt. *bheṃ-* (cp. § 312).

Initial *su* became voiceless *f*, which became *h*. Φοῖ *fé*, οἷ *é* 'sibi se', *φε-κάς* *ékás* 'apart, separated' : Skr. *svā-*. *φεξ* *éξ* 'six' : Cymr. *chwech*. The voicelessness of *f* is indicated in Bœot. inscrip. by *h*, *Φηκα-δάμοε*, cp. *ρh* = voiceless *ρ* § 266. Concerning medial *su*, which probably became *σσ σ*, as in ἴσσο-ς ἴσο-ς, and the initial *σ* of σάλος and others see § 563, 7.

Concerning *u*-epenthesis § 639.

ἱμ. οἴφο-ς οἶο-ς 'alone' : Av. *aeva-* 'unus'. αἰφεῖ αἰεῖ 'ever' : Lat. *aevom*. λαίος 'left' : Lat. *laevo-s*. For the *α* in αἰεῖ, δᾶηρ 'brother-in-law' = Skr. *dēvár-* etc. see §§ 96. 131.

Change between *u* and *uu* (cp. §§ 120. 131. 153). δά-δεκα and δύω 'two'. Παν-όψια and Sam. Κιαν-οψιών (cp. κύαμο-ς with *m*-suffix) exhibit the double forms πανο- and κυανο- 'bean' (πύανο-ς is a later contamination form) from rt. *kāu-* 'swell'. 3. sg. pret. ἐ-φύ-η 'arose', but ὑπερ-φ(τ)-ίαλο-ς (s. above) and O.Bulg. бѣ 'was' fr. **bū-ē-t*. κίων 'hound, dog': Skr. Ved. *śuvā*; fr. **κῑων* = Skr. *śvā* Lith. *szū* probably became **πῑων* and this form was then given up owing to its formal severance from *κυν-* (in *κυνός* etc.). 3. pl. ἀγνύ-ασι like Skr. *aśnuv-ānti* (beside *sunv-ānti*). 3. sg. ἐρρύη like Skr. *ásusruv-a-t* from rt. *sreṇ-* 'flow'. Cp. also §§ 312. 313.

Spellings like Cypr. *δνFάνοι*, Chalc. *ΓαρνFόνης* prove that the *u* from *uu* was not quite mute in Greek.

§ 167. Anteconsonantal medially and finally.

The Indg. diphthongs *eu*, *au* remained diphthongic. πει-θεται: Skr. *bōdhatē*, Indg. **bhēydhetai* from *bheydh-* 'wake, mark'. Voc. Ζεῦ fr. Indg. **d̥iēu*. αὖ αὖ-τε 'again': Lat. *au-t au-tem*. S. §§ 61. 96. Whilst *ou*, e. g. in loc. pl. βοοί (Skr. *gōṣu*), passed into *ū* already at an early period, s. § 80.

The first component of anteconsonantal *ēu*, *ōu*, *āu* underwent shortening in prim. Gr., e. g. Ζεύς fr. **d̥iēu-s* (§ 69), βοῦς 'bullock' fr. **gōu-s* (§ 85), ναῦς 'ship' fr. **nāu-s* (§ 101), s. § 611. They thus fell together with orig. *eu*, *ou*, *au* and became subject to the same changes as these.

Ion. Att. ἄ-ρορητο-ς 'unspoken' fr. **ā-roρητο-ς*, πολύ-ρορην 'rich in sheep' fr. **-φορην*, aor. ἔ-ρορηξα 'I broke' (trans.) from (Cypr.) ἔ-φορηξα. Whereas in Lesb. (and in Hom.) *φ* before *ρ*, *λ* united with the preceding vowel to form a diphthong: αὐρορητος = ἄρορητος 'not to be broken', ἐνράγη = ἐρράγη 'he broke' (intr.), ταλαύρινο-ς 'shield-bearing' (cp. *φρῖνος*· δέρμα Hysych., written *γρῖνος* in the Cod.), ἐύληρα 'reins' (cp. αὐληρον and ἄβληρα in Hysych.).

μῑ. δαίω 'I kindle' fr. **daF-uω*, κλαίω 'I weep' fr. **klaF-uω*. Hom. πλείω 'I sail' fr. **pleF-uω*. See § 131 p. 118 and § 639.

Italic.

§ 168. Initially. Lat. *vehō*, Umbr. *ar-veihtu* 'adicitō', Osc. *veiatura* 'vectura' (Paulus F.) : Skr. *vāhami* 'veho', Indg. **uégħō*. Lat. *vertō*, Umbr. *ku-vertu co-vertu* 'convertito', Osc. *ἑρσορεῖ* 'Versori, τροπαίω' : Skr. *vártatē* 'turns himself', Indg. **uértō*. Part. Lat. *vorsu-s*, Umbr. Osc. *vorsum* ('quod Graeci πλέθρον appellant, Osci et Umbri vorsum', Frontinus de limit. p. 30, 9) : Skr. *vr̥tá-s*, Lith. *viřsta-s*, Indg. **uřt-tó-* (§ 295). Lat. *vir*, Umbr. *viro veiro* 'viros', Osc. *vereias* 'iuventutis' : Goth. *vair* 'man', Skr. *vīrá-s* 'hero'.

Lat. *radix* 'root' fr. **urād-*, **ur̥d-* (§ 306) : Goth. *vaurts* 'root'. Lat. *lana* 'wool' fr. **ulāna*, **ul̥nā* : Skr. *ūr̥nā* (§ 306). Lat. *rēpō* 'I creep, crawl' probably fr. **ur̥pō* : Gr. *ρέπω* 'I incline' (of the scale of a balance) fr. **Frépō*, cp. *καλα-ῦρον* 'shepherd's crook' *ἀντι-ροποπο-ς* 'counterpoising'. *lōru-m* 'reins', to Gr. *ἐλγῖρα* (§ 167).

§ 169. Intersonantal. Lat. *ovi-s*, Umbr. *ovi* acc. 'oves', Osc. *Ovius* : Lith. *avi-s* 'sheep'. Lat. *Jov-is*, Umbr. *Iuve* Osc. *Iuvei* 'Iovi' : Skr. loc. *dyāv-i* 'in the sky', Indg. st. form **d̥iēu-*. Lat. *vīvo-s*, Osc. *bivus* nom. 'vivi' : Skr. *jīvā-s*. Lat. *juven-cu-s*, Umbr. *ivengar* nom. 'iuvencae' : Skr. *yuva-śā-s* 'youthful', Indg. **iuy̥u-kó-s* or **juuy̥u-kó-s* (§ 133). Lat. *novem*, for **noven* (after the analogy of *septem*, *decem*) : Skr. *nāva*, Indg. **neuy̥u*.

The *u* of the Indg. combination *uy̥u* in **duy̥uō* 'two' etc. was not so strongly articulated in Lat. as to be represented; forms like *instituvit*, *suvo*, *mortuva* did not make their appearance until after the end of the classical period (Schuchardt Voc. II 520 f.). Whereas Umbr. *tuva* neut. 'duo' *tuves* 'duobus' beside *duir* 'duobus'; *kastruvuf* beside *castruo* 'fundos'; Osc. *eitiuvam* beside *eituam* 'pecuniam'. Cp. § 170.

§ 170. Postconsonantal. Such an *u* partly remained consonantal in Italic, and partly became sonantal.

Lat. *tenuis* : cp. Skr. *tanv-ī* fem. 'long, stretched'. Lat. *genua* : cp. Av. *zanv-a* Gr. Lesb. *γόννα* 'genua'. Lat. *arvo-m*, Umbr. *arvam-en* 'in arvum' *arvia aruvia arvio* pl. n. 'fruges':

Cymr. *erw* 'piece of land' Bret. *erv* 'furrow'. Lat. *ferveō* : O.Ir. *berbaim* 'I seethe, cook, melt'. Lat. *salvo-s*, probably connected with Skr. *sārva-s* Gr. *ὅλος* *ὅλος* (Thurneysen Kuhn's Ztschr. XXVIII 160), Umbr. *salvom saluom, salva saluva*. Lat. *helvo-s* : OHG. *gelo*, inflected *gelawēr*, 'yellow', cpf. **gheluo-s*.

Rem. Lat. *ll* fr. *ly*, in illustration of which *pallidu-s* beside Lith. *paļva-s* 'pale-yellow' and other are quoted, seems to me very uncertain. See W. Meyer Kuhn's Ztschr. XXVIII p 163.

Lat. *equo-s* (Umbr. *ekvine* loc. 'equini' loan-word ?) : Skr. *dśva-s*, Indg. **ekyo-s*. Lat. *queror questus* : Skr. *śvās-i-mi* 'I breathe, wheeze, sigh' Indg. **kyes-*. Lat. *quattvor quatuor* (*quattuor*) : *catvār-as* 'four'. Lat. *mortuo-s* : O.Bulg. *mr̥tŭŭ* 'mortuus'. Lat. *bi-s*, *bi-dēns* : Skr. *dvī-ś* 'twice'. Lat. *bonus bene* fr. **du-ono-s* rt. *da²y-* 'honour, acknowledge' : cp. Skr. Ved. *dīv-as-* n. 'mark of respect'. *derbiōsu-s* 'scabby', fr. **derdy-* : Skr. *dardā-* 'eruption on the skin, leprosy'. Lat. *suāvi-s* fr. **suādy-i-s* (§ 506) : Skr. fem. *svādv-ī* 'suavis'. Lat. *foru-m* fr. prim. Ital. **puro-* : Lith. *dvāra-s* O.Bulg. *dvorŭ* 'court'. Lat. *suf-fiō* from prim. Ital. **py-iō* : Gr. *θύω* 'I sacrifice'. Lat. *arduo-s* fr. prim. Ital. **arpyo-s* : Skr. *ūrdhvā-s* 'upright', Indg. **ḡdhyó-s* (§ 306). 2. sg. *fīs* fr. **fīis*, **fy-iē-s*, like O.Pers. opt. *bi-ya* fr. **by-iyā(t)*, rt. *bhey-* (Osthoff Zur Gesch. d. Perf. 430 f.); hence *du-bius* from **du-bhy-ijo-s*, *-bō -bam* in *calē-bō, -bam* (Osc. *fu-fans* 'erant') fr. **bhy-ō* **bhy-a-m* etc.

sy- appears variously treated, but the reason of this diversity has not hitherto been discovered. Lat. *suāvis* : Skr. *svādū-* OS. *swōti* 'sweet'. Lat. *sī*, Osc. *svai svae* Umbr. *sve* 'si', Volsc. *se-pis* 'si quis', related to Goth. *sva* 'so' *svē* 'how'. Lat. *sex* : Gr. *ἑξ* *ἑξ* Cymr. *chwech* 'six'. Lat. *ser-ēnu-s* : Skr. *svār-* 'splendour, sky'. O.Lat. *sīs* 'suis' : Gr. *φός* *ός* Skr. *svā-* 'suus'. The elision of the *y* in Lat. *sūdor sūdare*, fr. **syūd-* **syoid-* according to § 81 p. 74 (cp. OHG. *sweiz* OS. *swēt* Skr. *svēda-s* 'sweat'), may be directly due to the following *ū*. By the side of this *so-* fr. **syē-* in *soror* etc. § 172. Medial *-sy-* : *Minerva* fr. **Menes-yā*, to Gr. *μένος* n. 'sense'; cp. § 569.

iy- Lat. *deivos dīvos*, Umbr. *deveia* 'dīvina', Osc. *deīvai*

'divae' : Pruss. *deiwa-s* Skr. *dēvá-s* 'god', Indg. **deiwo-s*. Lat. *aevo-m* : Gr. αἰ(φ)τί 'ever' αἰ(φ)ών 'time'.

Indg. *u* had become sonantal in such forms as *tenuis mortuos*, like *i* (§ 135) and *l* (§ 269). Poets occasionally, as it seems, made use of forms not usual in the ordinary language, e. g. *suādent* trisyllabic = *svādent* in Lucret. (Christ *Metrik*² 43 f.). When, on the other hand, they employ also *tenvis*, *genva* etc. (Christ as above p. 32, Kühner *Ausf. Grammat.* I 94), this pronunciation may be due to some dial. peculiarity, but it can hardly represent Indg. *u*. This is still less the case in O.Fr. *tenve* 'tenuis', Italian *belva* 'belua', Ital. *morto* Sp. *muerto* 'mortuus' (-to fr. -*tvo*) etc. (Diez *Gramm. d. rom. Spr.* I⁴ 187 f., Horning *Ztschr. für roman. Phil.* VII 572 f.)

On the other hand Indg. *uu* seems to occur unchanged e. g. in *duō dui dui-dēns* beside *bi-* (cp. Skr. Ved. *duvā duiṣ* beside *dvā dviṣ* etc.); O.Lat. *duonōro* 'bonorum' (cp. Skr. Ved. *dūv-as-*); *su-is su-ī su-īnu-s* (cp. Gr. ὕ-ός ὕ-ί with e. g. Goth. *sv-ein* 'pig' O.Bulg. *su-inū* 'suillus'); *Fa-tuo-s* 'prophet', *mū-tuo-s* 'changeable' (cp. Skr. Ved. *jē-tuva-s* 'to be won'). *suo-s* may have arisen from *sovos* = Indg. **sewo-s* (§ 172), but it may also be identical with Skr. Ved. *suvá-s* (beside *svá-s*).

Umbr. forms like *saluom* show the same change of *u* to *uu* as Lat. *quatuor* etc.

§ 171. Anteconsonantal medially and finally. Prim. Ital. *ou* (= Indg. *eu* and *ou*) became *u* (ō) in Lat., ō in Umbr., ov in Osc. : e. g. gen. sg. Lat. *tribūs*, Umbr. *trifor* 'tribus', Osc. *castrovs* 'fundi', s. §§ 65. 81. Prim. Ital. *au* became Lat. *au*, Umbr. ō, Osc. av : e. g. *aut*, *ote*, *avti* s. § 97. Umbr. *manuv-e* 'in manu' (*v* was a glide) is traceable to Indg. -*ou*, and perhaps also Lat. *ūsū* used as loc., cp. Skr. *sānū* loc. sg. of *sānū-ṣ* 'son', s. § 85.

Osc. *v*, *f* in *avti* 'aut', *Avfi* 'Aufius', *castrovs* 'fundi', *túvtiks* 'publicus', *topto rōfro* 'civitas', *Lúvkanateis* 'Lucanatis', *Luvkis* 'Lucius', *Lúvfreis* 'Liberi', *Núvlanús* 'Nolani', and others, point to a sharper division of the two components than in the usual pronunciation of diphthongs, i. e. an articulation

similar to the Mod. Gr. pronunciation of *av* and *ev* (in *αὐλῆς*, *αὔριον*, *εὔνους*, *εὐγνώμων* etc.).

§ 172. *v* = Indg. *u* was certainly spoken as a vowel, not as spirant in Lat. prior to and during the classical period, probably also in the other Ital. dialects. Lat. *v* did not become a spirant until the second cent. A. D.

By the vocalic pronunciation of the Lat. *v* are to be explained the following changes which have not been given above.

1. *-u-* in unaccented syllables (§ 680) fr. *-ou-* (§§ 65. 81), *-au-* (§ 97). *dē-nuō* fr. *dē novō*. *ind-uō* fr. **ind-ovō* : Umbr. *anovihimu* 'induimino', Lith. *au-nū* (Inf. *aũ-ti*) 'I put on feet-covering'. *impluō* fr. **im-plovō* beside *plovō*, Gr. *πλέ(φ)ω*. *ab-luō ē-luācru-s* beside *lavō lavācru-m*. Cp. Osthoff Morph. Unt. IV 80. 158. 391. Zur Gesch. d. Perf. 259.

2. *-u-* from *-uo-*. *ecus* (class. period) from *equo-s* (corresponding to *aecus* fr. *aequos* with *qu* = Indg. *q*, s. § 341a). *Gnaeus* from *Gnaivo-s*. *deus* fr. *deivo-s*. Cp. also inscrip. *vius* (*i*) = *vīvos*, *aenum* = *aevom* etc. The postclass. form *equus* is a new formation made after the analogy of *equi* etc., class. *divos* (*divus*) after *dīvī* etc., vice versa *Gnaei*, *dei* after *Gnaeus*, *deus*. Cp. Bersu Die Gutturalen 53 ff., Thurneysen Kuhn's Ztschr. XXVIII 155 f. In a similar manner probably also *con-cutiō* fr. **con-quatiō* (§ 97).

3. *-o-* fr. *-ue-*. *soror* fr. **suesōr* : Skr. *svāsar-* 'sister'. *socrus* fr. **suecru-s* : Skr. *śvaśrū-* fr. **syaśrū-* (§ 557, 4), Gr. *ἐκρά* 'mother-in-law'. *somnu-s* fr. **suepno-s* : Skr. *svāpnu-s* 'sleep'. *combr-ētu-m* 'a kind of rush' : Lith. *szveñdrai* pl. 'a kind of reed', cpf. **kxendhro-* (§ 370). Correspondingly *coquō* fr. **quequō* etc. with *qu* = Indg. *q*, s. § 431a.

4. Changes with loss of a medial syllable. *au-spex* fr. **avi-spez*. *claudō* fr. **clavidō*. *ō-piliō ū-piliō* fr. **ovi-piliō*. *noundinae nūndinae* fr. **noven-dinae*. *prūdēns* beside *prō-vidēns*. *aetās* fr. O.Lat. *aevitās*. *praedēs* pl. fr. O.Lat. *praevidēs*. *mālō mālīm* beside O.Lat. *māvolō māvelīm*, etc. Cp. § 633.

Cp. Umbr. *bue* 'bove' *buo* 'boum', *courtust* beside *covortus* 'converterit'.

Old Irish.

§ 173. Initially *f*- *fēn* 'wain': rt. *uegh*- 'vehere' (§ 526). *fedim* 'I bring, lead': Skr. *vadhū*-š 'bride, young woman', Lith. *vedù* O.Bulg. *vedq* 'I lead'. *fer* 'man': Lat. *vir*. *fiss* 'scientia' fr. **uissu*-s, **uid*+*tu*-: Skr. *vēda* 'he knows', Lat. *videō*. *frass* f. 'shower of rain': Skr. *varṣā*-s 'rain', Gr. Hom. *ἔειρον* 'dew' (cp. § 274). *flaith*, gen. *flatha*, f. 'dominion, sway': Goth. *valda* O.Bulg. *vladq* 'I wield, rule' (cp. § 274).

Concerning *f*, when conditionally initial, e. g. *a fīr* 'O man', s. § 658, 1.

l- fr. **ul*- in *lingim* 'I jump', to Skr. *vālgāmi* 'I jump, hop' (s. § 285 rem.)? Otherwise Thurneysen Keltor. 85 f.

v- (i. e. *u* or spirant?) still appears in Gall., and also in Britannic names of the Roman period, later in Brit. *gu*- (*gu*- *gw*-). Gall. *vergo-bretus* 'cuius iudicium efficax est', O.Cymr. *guerg* 'efficax': O.Ir. *ferg ferc* 'ira', to Gr. *ὀργή* 'impulse, anger'. Cymr. *gweddw*: O.Ir. *fedb* 'widow', Lat. *vidua* (cp. § 174). O.Cymr. *gulat* Mod. Cymr. *gwlad*, Bret. *glat*: O.Ir. *flaith*.

Rem. *b* i. e. voiced spirant (cp. § 175) for medial *f* after the preposition *com*-, which lost its *m*. *co-bsud* 'stabilis' to *fossad* 'quiet, fast' from *foss* 'a remaining, quietness': Skr. *vāsāmi* 'I sojourn, dwell', Goth. *visa* 'I remain'. *coibnes* 'affinitas' fr. **co(n)-bines* from *fine* 'relationship': OHG. OS. *wīni* 'friend'. Cp. §§ 212. 513. 658.

§ 174. Interconsonantal *u* partly underwent contraction with the preceding vowel and formed a long vowel, and partly entirely disappeared, whilst *u* remained in the Britan. branch. *clū* 'fame, renown', Cymr. *clyw* 'hearing': Gr. *κλέφος* Skr. *śrāvas*- 'renown'. Plural *clōi* 'nails': Lat. *clavī*. *ōi* 'sheep': Lat. *ovi*-s. Perf. *bōi* 'fuit' fr. orig. **(bhe-)bhoy-e*: cp. Av. *ba-vav-a*, rt. *bhey*-. Gen. pl. *bō n*- 'boum': Gr. *βο(ν)-ων*; *Boind*, a river in the south of Ireland, in Ptolem. still *Bovovinda* (*Buvinda*). *ōac* *ōc* (compar. *ōa*, superl. *ōam*) Cymr. *ieuanc* 'iuvenis', prim. Kelt. **ioweko*-s: cp. Skr. *yuvaśā*- comparat. *yāvīyas*- (§ 137). *lī* cymr. *lliw* O.Corn. *liu* Mod. Corn. *lyw* 'color, splendor': Lat. *livor*. *biu* *beo* (nom. pl. *bī*) Cymr. *byw* 'alive', O.Corn. *biu* Mod. Corn. *bew* 'vita': Gr. *βίος*- 'life', Goth. *giu*-s Lith. *gýva*-s

Lat. *vīvo-s* 'quick, alive', Indg. **gīyo-s-*. *nōi n-* Cymr. *naw* Corn. *naw* 'nine': Skr. *nāva*, Indg. **néyū*.

In *fedb* 'widow' (Skr. *vidhāva*, Lat. *vidua* fr. **vidovā* by § 172, 1, O.Bulg. *vidova*) *-doy-* became *-dy-* at an early period (§ 634), from the latter *-db-* (cp. § 175).

§ 175. Postconsonantal. *marb* 'dead' *marbaim* 'I kill', Cymr. *marw* Corn. *marow* Bret. *marv marf* 'dead': OHG. *maro*, inflected *marawēr* 'ripe, mellow, fragile'. *tarb* 'ox', Gall. *tarvo-s* Cymr. *tarw* Corn. *tarow* Bret. *tarv tarf* 'ox': Gr. *ταῖρο-ς* probably fr. **taofo-ς* (§ 639). *berbaim* Cymr. *berwaf* 'I seethe': Lat. *ferveō*. Cp. also *delb* 'figure, form' Cymr. *delw* and *danb* 'sus' Cymr. *banw* fr. **bandva*. This *b* after *r*, *l*, *d* was a voiced spirant like intervocalic *b* (§ 522).

ech 'horse', Gall. *epo-*, prim. Kelt. **ekyo-s*: Skr. *áśva-s* (cp. O.Ir. *c* Britt. *p* = Indg. *q* § 435). *cethir* 'four', O.Cymr. *petguar* Mod. Cymr. *pedwar* Corn. *peswar* Bret. *pevar*, in Ptolem. *Περωαγία*, a town in Britain: Skr. *catvār-as*, Goth. *fidvōr*. *dā dau* 'two', O.Cymr. M.Bret. *dou*: Skr. *dvā dvāú*. *biu* 'I am' like Lat. *fiō* goes back to a prim. Indg. **bhū-iūō*, rt. *bhey-* (§ 170).

sy- appears as *s-* and as *f-*, Cymr. *chw-*. *siur fiur* 'sister', Cymr. *chwaer*: Skr. *svásar-*. *se* 'six' *sese* 'six men', *mōr-feser* 'magnus seviratus' i. e. '7', Cymr. *chwech*: Gr. *ἑξ ἑξ* fr. **σφεξ*. *do-sennat*, 'they hunt, drive' from a rt. *syend-*. *f* and *b* = *sy* appear after vowels; *b* is written before voiced consonants and finally. Redupl. pf. 3. sg. *do-sefainn* = **sesyonde*, 3. pl. *do-sefnatar*, pres. 3. sg. imper. *toibned* from **to-fenned*, related to *do-sennat*, given above. Gen. *feibe* dat. acc. *feib* 'excellence, suitableness, worthiness' fr. prim. Kelt. gen. **yesy-ias* dat. *-ī* acc. *-in* beside nom. *fiu* fr. **yisu-s* **yesu-s*. We must accordingly assume that initial *f-* = *sy-* in *fiur* did not arise in absolute initiality¹⁾. Cp. § 658, 1. Medial *sy* after *k* probably

1) The form *fiur*, as Thurneysen remarks, does not occur as an absolute initial.

in *dees* 'to the right, southerly' fr. **deksyo-*, O.Cymr. *dehou* : Goth. *taihsva* 'to the right', cp. Gall. *Dexsiva*.

iu. *dia*, gen. *dē* voc. *dē*, 'god' (hereto *diade* 'godly'), O.Cymr. *duiu* Mod. Cymr. *duw* 'god', Gall. *Δειονονα Dēvo-gnāta* : Pruss. *deiwa-s* Skr. *dēvā-s* 'god', Indg. **deiyō-s*.

§ 176. Antec consonantal medially and finally. Indg. *eu* and *ou* fell together in *ō* (*ua*) in accented syllables, e. g. *lōche* 'fulmen', *tuath* 'folk', *ruad* 'red'; from *ay* *ō*, e. g. *au* *ō* 'ear'; s. §§ 66. 82. 98. *dau* *dō* 'two' : Skr. *dvāu*, Indg. **dyōu*, s. § 85.

Germanic.

§ 177. Indg. *u* was, as it seems, still generally a consonantal *u* in prim. Germ. This pronunciation remained in Goth. (written *v*), likewise in OHG. (written *uu*, *w*); but in the MHG. period *u* became a spirant, spoken as in Mod. HG.

§ 178. Initially. Goth. *ga-vigan* 'to move', OHG. *wegan* Ags. *wegan* 'to move oneself', O.Icel. *vega* 'to be in motion' : Skr. *vāhami* 'veho', Indg. **ueghō*. Goth. *vatō* n. (gen. sg. *vatins*, dat. pl. *vatn-a-m*) OHG. *wazzar* OS. *watar* O.Icel. *vatn* n. 'water' : Lith. *vandū*, gen. *vandėns*, O.Bulg. *voda* 'water', cp. Skr. *ud-ān-* 'water' with Indg. weak grade form of the root syllable (§ 221). Goth. *vitān* OHG. *wizzan* 'to know' : Gr. *ἴδεῖν* *ἰδεῖν*, Skr. *vidmā* 'we know'. Goth. *vulfs* OHG. *wolf* prim. Germ. **uulfa-z* 'wolf' (concerning *f*, s. § 444), Skr. *vṛka-s* Lith. *vilka-s* O.Bulg. *vlükū* 'wolf', Indg. **uľqo-s*.

Goth. *vráiqs* 'slant, crooked' : Gr. *ῥαῖος* 'crooked, crook-legged' fr. **ῥαῖος*. Goth. *vrīts* m. 'line, point', OHG. *riz* 'line, stroke, letter', OHG. *rīzan* OS. *writan* 'to cut, scratch into' (rt. *ureid-*, not found except in Germ.). Goth. *vlits* m. 'look, face', OS. *wliti*; represented in OHG. by *ant-lizzi* n. 'countenance' (cp. Ags. *and-ulita* m.), which arose from a contamination with *ant-lutti* n. (Goth. *ludja* fem. 'face') and represented regular **ant-liz*. *wr-* occurs in OHG. only a few times in Frank. monuments as *wrehhan* 'exulem', to the verb *rehhan* 'to punish' = Goth. *vrīkan* 'to persecute'.

§ 179. Intersonantal. Goth. *avēpi* n. 'herd of sheep', OHG. *au* (nom. pl. *awi*) 'sheep': Lat. *ovi-s* Lith. *avi-s* 'sheep'. Goth. *suniv-ē* 'of sons': cp. O.Bulg. *synov-ŭ*, Gr. *πῆχων* fr. **πῆχες-ων*. Prim. Germ. **iunuraga-z* (= Skr. *yuvaśā-s*, Lat. *juvencu-s*) became **iūruga-z*: Goth. *juggs* (still spoken with *ū*? cp. § 614) OHG. OS. *jung* O.Icel. *ungr* 'young'. Correspondingly *u* fr. *yu* in Goth. OHG. *niun* 'nine', cp. Skr. *nāva* etc., Indg. **neun* (cp. § 659, 6).

Indg. *ōu-* and *au-* = prim. Germ. *ōu-* (§§ 91. 107) became *au-* in Goth. before vowels. *staua* f. 'judgment', *staua*, gen. *stauins* 'judge': O.Bulg. *staviti* 'to place, stop' *pri-stavū* 'an official man', Lith. *stóviu stovėti* 'to stand'. *af-dauīps* 'exhausted': O.Bulg. *daviti* 'to strangle', Lith. *dōvyti* 'to put in continual motion'. This *au* was probably an open *ō*, viz. the long of *áu* (*baúrans* 'carried'), like the *au* in loan-words as *Trauadái* 'Τρωάδι', *prattauria* beside *prattōria* f. 'praetorium' (Braune Got. Gramm.² p. 13). Cp. the *ai* in *saian* § 142. The questions connected with antevocalic *au* in Goth. and its representation in HG. have not as yet been fully settled, see Paul in Paul-Braune's Beitr. VII 152 ff., VIII 210 ff., Kōgel ibid. IX 513 ff.

Goth. *av* and *iv* before a vowel passed into the diphthongs *áu* and *iu*, when this vowel was elided and *v* consequently became final or stood before a consonant. *snáu*, 3. sg. pret. of *snivan* 'to hurry', fr. **snay(i)*, prim. f. **se-snōu-e*. *triu* 'stick, stake' (gen. *trivis*) fr. **triū(am)*, prim. f. **dreu-o-m*. *gius* 'vivid' (gen. *givis*) fr. **giū(a)z*, prim. f. **giuo-s*; *ga-giujā* 'I quicken' fr. **giū(i)jō*, prim. f. **giūejō* (cp. § 142). Such an *-iu-* became *-ju-* in unaccented syllables: nom. pl. *sunjus* 'sons' fr. **sunius* **suniuz* **suney-es*: Skr. *sūnāv-as* 'sons' (cp. § 143 rem.). Here belongs also the change of *-ōu-* to Goth. *-ōj-*: the diphthong *ōu* became (close) *ō*. *stōja* 'I judge' fr. **stōujō*, prim. Germ. **stōūjō*, pret. *stauida* (see above): O.Bulg. 1. sg. *stavljā* (with excrescent *l*, § 147 p. 132) 2. sg. *staviši*, inf. *staviti* 'to place'.

With this cp. *lēv* n. 'opportunity, occasion' fr. **lēu(a-m)*, *lēvja* 'I betray'; nom. *áivs* acc. *áiv* 'time' (Lat. *aevo-m*) fr. **aiū(a)z* **aiū(a-m)*.

-*ggv*- (the first *g* is not to be read *ʒ* as in other cases) fr. -*ʒ*- is parallel to Goth. -*ddj*- fr. -*j*- (§ 142 p. 127). In Norse likewise -*ggv*- (-*gg*-), whilst the orig. prim. Germ. sound generated an *u* in West Germ., which united with the preceding vowel to form a diphthong, or *ū* (when the preceding vowel was *u*). Goth. *triggva* f. 'covenant' *triggvōs* 'true, faithful', O.Icel. *tryggr* acc. *tryggvan* = Goth. *triggvana*, OHG. *treuwa triuwa* 'loyalty': cp. Pruss. *druwi* f. 'faith, belief', Gr. *ῥοό-ν* 'ἰσχυρόν. Ἀρεῖῶν Hesych. Goth. *glaggvō* adv. 'carefully, exactly', adj. O.Icel. *glöggr* OHG. inflected *glauwēr* 'exact, clear'. Goth. *skuggva* 'mirror', O.Icel. *skugge* OHG. *scāwo* 'shadow'. The conditions for this special Germ. treatment of *ʒ* as well as that of the corresponding *j* have not been determined. Cp. Paul in Paul-Braune's Beitr. VII 165 f., Kögel ibid. IX 523 ff., J. Schmidt Anz. f. d. Alt. VI 125 f.

§ 180. Postconsonantal. Goth. *aiþva-tundi* 'βάρος': Lat. *equo-s*, Indg. **ekyo-s* 'horse'. *mavi* f. 'girl' fr. **ma(ʒ)u-i* (§ 444 c) to *magu-s* 'boy', like Skr. *svādv-ti* f. to *svādú-ṣ* 'sweet'. Suffix -*þva*, e. g. *frija-þva* f. 'love': Skr. *priya-tvā-m* n. 'being agreeable, pleasing'. *fidvōr* 'four': Skr. *catvār-as*. Pl. *tvái* 'two': Skr. du. *dvā dvāú*. *svistar* 'sister': Skr. *svásar-*. *faúr-valveiþ* 'he rolls before': Lat. *volveō*.

w remained in OHG. in combinations at the beginning of words. *dwahan* 'to wash': Goth. *þvahan*. *zwēne* 'two': Goth. *tvái*. *swester* 'sister': Goth. *svistar*. Sometimes with anaptyctic vowel after *s*, *z*: *sowarz* beside *swarz* 'black', Goth. *svarts*; *zoweōn* beside *zweōn* 'to doubt'; in other cases seldom, e. g. *thowahan* beside *thwahan dwahan*. *w* remained in medial combinations only when preceded by *r*, *l*, *s* in which case a vowel was developed. *marawēr* (inflected form to *maro*) 'mellow', prim. Germ. st. **marʒa-*: O.Ir. *marb* Cymr. *marw* 'dead'. *gelawēr* (inflected form to *gelo*) 'yellow': Lat. *helvo-s*. *zesawēr* *zeseuēr* (infl. form to *zesō*) 'dexter': Goth. *taiþsva*. *w* disappeared after other consonants. *selida* 'shelter': Goth. *salīþva*. *wahta* 'watch': Goth. *vahtvō*.

Rem. 1. *scato*, gen. *scatawes*, m. 'shade', to Goth. *skadu-s* is generally given as an exception. The form, however, seems to go back to a st. **skadūʷa-*, cp. OHG. *wīlawa* : Goth. *viduvō*.

Rem 2. On the forms containing anaptyctic vowels cp. § 628.

-ny- became *-nn-* in prim. Germ. Goth. *minniza* OHG. *minniro* 'minor' fr. **miny-iz-ō* from **minu-* : Gr. *μνί-θω*, Lat. *minu-ō*. Prim. Germ. **mann-* 'man' fr. **many-*, dat. (loc.) sg. Goth. *mann* OHG. *man* fr. **mann-i*, gen. pl. Goth. *mann-ē* OHG. *mann-o* etc. : Skr. *mānu-ṣ* 'Manu'. Goth. OHG. *rinnan* 'to run' from **ri-ny-ana-n* : Skr. *ri-ṇv-a-ti* 'he lets flow' (not found in the texts), cp. the close of § 153.

iū. Goth. *divs*, gen. *divis*, m. 'a long time' *diveins* 'eternal', OHG. *ēwa* f. 'long time, order' *ēwīn* 'eternal' : Lat. *aevo-m*, cpf. **aiyo-*. Goth. *hláiv* n. 'tumulus', OHG. *hlēo* gen. *hlēwes*, prim. f. **kloi-ʷo-s* from rt. *klei-* 'lean': cp. Lat. *clī-vo-s*.

Postconsonantal *-ʷu-* became *-u-* in prim. Germ. O.Icel. *sund* n. Ags. *sund* m. 'swimming' from prim. Germ. **syum-da-* (§ 214), to O.Norse *svima* 'to swim' part. *sumenn*. Goth. *hunsel* Ags. *hūsel* O.Icel. *hūsl* n. 'offering, holy service' from prim. Germ. **xyunt+ila-m* from Indg. **kū-nt-* : cp. Av. *spent-a-* O.Bulg. *svetū* 'holy'. OHG. part. *gi-dungan* (to *dwingan* 'to squeeze, press'), *dūhan* 'to squeeze, press' (weak verb) fr. prim. Germ. **puṛg-* **puṛx-* fr. **pūuṛg-* **pūuṛx-* (§ 214), rt. *tyeṛq-* : Lith. *tvenkia* 'it is sultry, gives pain'. Cp. OHG. *koman* 'come' pp. fr. prim. Germ. **kumana-*, older **kūmana-* etc. with Indg. velar explosive, § 444 b.

§ 181. Ant consonantal medially and finally. *ey* : Goth. *piuda* OHG. *deota diota* 'folk' : O.Ir. *tuath*, cpf. **teytā*, § 67. *oy* : Goth. *ráuþs* (st. *rāuda-*) OHG. *rōt* 'red' : O.Ir. *ruad*, cpf. **rouðho-s*, § 83. *ay* : Goth. *áuk* 'for, but' *áukan* 'to increase, grow', OHG. *auh* 'also' : Lat. *augeō*, rt. *ayg-*, § 99. *ōy* : Goth. *ahtáu* 'eight' : Skr. *aṣṭáu*, cpf. **oktōy*, § 659, 3.

Goth. *iu* and *áu* before *j* are also specially to be noted (§ 154). *niuji-s* 'new' : Skr. *nāvyā-s* 'new', Indg. **ney-jo-s* (cp. on the other hand OHG. *niwi*, like Goth. part. *ana-niviþs* 'renewed'). *haujis* gen. of *havi* n. 'hay', prim. st. **qou-jo-* or

**qay-jo-*, to OHG. *houwōn* O.Icel. *hoggva* 'to hew', O.Bulg. *kopa kovati* 'to hew, strike, slay'. Cp. *iu* in *ga-giuja* § 179 p. 156.

Rem. The supposition of several scholars, that *ō* also arose from *ōu* before other consonants than *i* (cp. Goth. *stōjan* § 179) in prim. Germanic, e. g. in Goth. *flōdus* OHG. *fluot* 'flood, tide', rt. **plōu-*, is not sufficiently founded.

Baltic-Slavonic.

§ 182. Initially. Lith. *vežū* O.Bulg. *vezq* 'veho': Skr. *vāhami*, Indg. **ueghō*. Lith. *valdaū* O.Bulg. *vladaq* 'I govern, rule': Goth. *valda* 'I rule, wield'. Lith. *vý-ti* O.Bulg. *vi-ti* 'to wind, turn': Lat. *vieō vīti-s*. Lith. *véida-s* 'face', O.Bulg. *vidū* 'look': Lat. *videō*. Lith. *vėja-s* 'wind', O.Bulg. *vėja-ti* 'to blow': Skr. *vā-ti* 'blows' *vāyū-ṣ* 'wind'. Lith. *vilni-s* f. O.Bulg. *vlūna* 'wave', prim. f. **ul-ni-s* **ul-na*, rt. *uel-* 'turn, wind, roll' (Gr. *ἐλύνω*, Lat. *volvo*). Lith. *virszū-s* O.Bulg. *vrīchū* 'the upper end, point', prim. f. **urs-u-s*: Skr. *vārṣ-iṣṭha-* 'the highest, topmost'.

§ 183. Intersonantal. Lith. *avi-s* O.Bulg. *ovī-ca* 'sheep': Lat. *ovi-s*. Lith. *sravà* 'the act of flowing', O.Bulg. *o-strovū* 'island': Gr. *ῥοφά ῥοή* 'stream', Skr. *srāva-s* 'river, efflux' *srāva-ti* 'flows', rt. *srey-*. Lith. *gy-va-s* O.Bulg. *ži-vū* 'alive': Lat. *vīvo-s*, Indg. **gi-yo-s*. Part. pf. Lith. *dā-ves* O.Bulg. *da-vū* 'δεδωνώς' (Lith. *da-* = Indg. **dā-*, O.Bulg. *da-* = Indg. **dō-*): cp. Skr. *bi-bhī-vān* (*bhī-* 'fear'). 1. du. Lith. *vėža-va* O.Bulg. *veze-vē* 'we two ride': Skr. *vāha-vas*. O.Bulg. nom. pl. *synov-e* 'sons': Skr. *sūnāv-as*. Lith. *deviñta-s* Pruss. *newīnts* O.Bulg. *devetū* 'ninth' m. (concerning the transformation of the initial see § 68): Goth. *niunda*, Indg. **neuy-tó-s*.

uy-. Lith. *krūv-ina-s* O.Bulg. *krūv-īnū* 'bloody', O.Bulg. *krūv-ī*, gen. *krūv-e*, 'blood': Lat. *cru-entu-s cru-or*, Av. *xruv-iye-m* 'stain, horror' beside Skr. *krav-ya-m* 'raw meat, flesh' Gr. *κρέ(f)-ας*, rt. *grey-*. Lith. *buv-aū* 'I was' *būv-us-i* fem. part. pf., O.Bulg. *za-būv-enū* 'forgotten': cp. Gr. *περνω*, Skr. *bhūv-ana-m* 'being, world'. Lith. *bruv-i-s* m. O.Bulg. *brūv-ī* f. 'brow': Skr. st. form *bhruv-* in gen. abl. sg. *bhruv-ās* etc. O.Bulg. *zūv-a-ti* 'to call': Skr. *huv-ā-ti* 'calls'. O.Bulg. *svekrūv-e* gen. sg. of *svekry* 'mother-in-law': Skr. Ved. loc. sg. *śvaśruv-ām*.

§ 184. Postconsonantal. Lith. *svitėti* O.Bulg. *svītēti* 'to shine brightly': Skr. *śvit-rá-s* 'shining', rt. *kyeīt-*. Lith. *aszvā* 'mare', Pruss. *aswina-m* 'equinum, horse-milk': Skr. *áśva-s*, Indg. **ekyo-s*. Suffix *-tuo-*, O.Bulg. *mrī-toŭ* 'mortuus' *množī-s-tvo* n. 'crowd', Lith. *senā-tvė* f. 'old age'. Lith. *ketveri* O.Bulg. *čtvero* 'four' (distrib.), Lith. *ketvīrta-s* O.Bulg. *čtvrītū* 'fourth' m. prim. f. **getur-to-s*. Lith. *dui* O.Bulg. *dvē* 'duae': Skr. *dvē*, cpf. **duāi*. Lith. 1. du. *ėd-va* 'we two eat': Skr. *ad-vas*. O.Bulg. *bē* 'thou wast' *bē* 'he was' fr. **by-ě-s* **by-ě-t* fr. rt. *bhey-* 'to become' (§ 312); cp. *obiti* 'to wind round' fr. **ob-viti* etc.

Pruss. *swais* O.Bulg. *svojī* 'suus': Skr. *svá-* 'suus'; Lith. *svōtai* 'parents of the bride, related by marriage' from the same Indg. stem has the suspicion of having been borrowed from Slav., O.Bulg. *svatū* 'affinis'. Lith. *svilti* 'to take fire, to burn without flame': Ags. *swelan* 'to glow' OHG. *swilizōn* 'to burn slowly away'. O.Bulg. *sv-inū* 'suillus': Goth. *sv-ein* 'pig'. Lith. *ės-va* O.Bulg. *jes-vē* 'we two are': Skr. *s-vās*.

u is occasionally elided before initial *s-* (*sz-*), without the reason of its elision being clearly known (cp. Osthoff Zur Gesch. d. Perf. 456). Lith. *sesū* O.Bulg. *sestra*, but Pruss. *swestro* 'sister': Goth. *svistar*. Lith. *sāpna-s* 'dream': Skr. *svāpna-s*. Lith. *szeszura-s*, by assimilation from **seszura-s* (§ 587, 2): O.Bulg. *svekrū* Goth. *svathra* Skr. *śvāsūra-s* fr. **svašura-s* (§ 557, 4) Gr. *ἐνυφός* 'father-in-law'.

In Lith. *szū* 'dog' fr. **szyū* = Skr. *śvā* and in *dū* 'two' fr. **dū* (§ 664, 3), the latter fr. **dyū*, the elision of the *u* was caused by the following *ū*.

Lith. *kārvė* O.Bulg. *krava* fr. **korvā* (§ 281) 'cow', related to Lat. *cervo-s*. O.Bulg. *sū-dravū* *zdravū* (§ 588, 5) 'healthy', *-dravū* fr. **-dorvū* (§ 281): Skr. *dhr-uvā-* 'fast' with weak grade form of the root syllable and dissyllabic form of the suffix *-uo-*. Lith. *paīva-s* (Slav. loan-word?) O.Bulg. *plavū* 'whitish, pale' (§ 281): OHG. *falo* (inflected *falawēr*) 'fallow', cpf. **poluo-s*.

Old *-ny-* perhaps in Lith. dial. *tenva-s* Lett. *tīvs* (*ī* regularly fr. *en*) 'thin', to O.Bulg. *tīn-ī-kū* 'thin': Skr. *tanū-* *tanv-* 'long, stretched'; the Baltic words probably with vowel form of the

comparative in the rt. syllable, as *leŋgva-s* beside *lengvū-s* 'light' (cp. comparative Av. *renj-yō* neut. 'lighter' and Skr. pos. *laghú-laghv-*, Gr. ἐλαχύν-). Slav. *-n-* fr. *-nu-* : compar. *mīnji-jĩ*, gen. *mīnjiša*, 'minor' : cp. Goth. *minniza* fr. **minu-iz-ō*.

iū. Lith. *dėver-i-s* O.Bulg. *děver-ĩ* 'brother-in-law' : Skr. *dēvár-*, Indg. **daiuer-*.

The change between *v* and *ūv* in O.Bulg. *dva* beside *dūva* 'two' (Skr. Ved. *dvā* and *duvā*), *zvati* beside *zūvati* 'to call' (Av. *zbayēiti* and *zuvayēiti* 'he calls'), *bē* 'he was' fr. **bue* beside *za-būv-enū* 'forgotten' (Skr. *á-bhv-a-* 'not being, monstrous' and *bhūv-ana-m* 'the being, world') etc., may be regarded as old inherited. Cp. the end of § 183.

§ 185. Antecorsonantal medially and finally. Indg. *eu* and *ou* fell together in *ou* in the prim. Baltic-Slavonic period. Inf. Lith. *pláuti* 'rinse, wash' O.Bulg. *pluti* 'to flow' : Gr. ἐπλεν-σα. Gen. sg. Lith. *sūnaūs* O.Bulg. *synu* 'son's' : Goth. *sunáus*, Indg. *-ous*. Voc. Lith. *sūnaũ* O.Bulg. *synu* 'O son' : Skr. *sūnō*. Cp. §§ 68. 84. Further this prim. Baltic-Slav. *ou* also fell together with Indg. *au*. Lith. *saūsa-s* O.Bulg. *suchū* 'dry' : Gr. *avō* 'I dry, wither', cp. § 100.

O.Bulg. loc. sg. *synu* 'in filio' : Skr. *sūnāú*, see § 85.

Diphthongs with the first component short before Indg. *i*. Lith. *pláuju* 'I rinse, wash', O.Bulg. *plujā* 'I flow' : Gr. Hom. *πλείω* fr. **pleiō* (§§ 131. 639), cpf. **pleu-iō*. Lith. *naūja-s* 'new' : Skr. *nāvya-s*, cpf. **neu-iō-s*. Lith. *kraūja-s* 'blood' : Skr. *kravya-m* 'raw flesh', cpf. **greu-iō-*. O.Bulg. *šujĩ* 'to the left' fr. **šiūĩ* (§ 147) : Skr. *savyá-s* 'to the left'; *iū* for *ū* with the same regular, but still unexplained *i* as in *bljudā* and others (J. Schmidt Kuhn's Zeitschr. XXIII 348).

Rem. That O.Bulg. *jaje* n. 'egg' has arisen from **āu-je* (Lat. *ovum*, Gr. ὄον), is very uncertain.

§ 186. Indg. *u*, where it remained an independent consonant, has now become a spirant, probably throughout the Baltic-Slav. languages, certainly in a great part of them. I

leave it undecided as to whether the sound was still *u* consonant in the O.Bulg. period.

Loss of *u* in the prim. Indg. period.

§ 187. The Indg. parent language had an enclitic case of the pronoun of the 2. person **toi* = Skr. *tē* Av. *tē tōi* O.Pers. *taiy* Gr. *τοῖ* O.Bulg. *ti* beside accented **tuóĭ* = Skr. *tvé* Av. *pwōi* Gr. *σολ* fr. **rfou* (cp. also O.Bulg. *twojĭ* 'tuus'). Perhaps also of the reflexive stem a **soĭ* = Prākr. *sē* Av. *hē hōi* O.Pers. *saiy* O.Bulg. *si* beside **suóĭ* = Gr. *φοῖ*. It is not improbable that the *u* in the enclitic forms first disappeared after certain consonants. See Wackernagel Kuhn's Ztschr. XXIV 592 ff.

§ 188. *u* seems further to have disappeared between long vowels and (antesonantal) *m*. Acc. sg. Skr. *dyām diyām*, Gr. *Zḗr*, Lat. *diem*, Indg. **dĕm *dĕm* (cp. § 120) beside nom. **dĕyus* 'clear sky' = Skr. *dyāúṣ* etc.; Skr. *gām*, Gr. *βῶν*, OHG. *chuo* OS. *kō*, Indg. **gōm* beside nom. **gōus* 'ox' = Skr. *gāúṣ* etc., cp. §§ 192. 645. OHG. *guoma* Ags. *zōma* O.Icel. *gōmr* 'palate', Lith. *gomurys* 'palate' (beside OHG. *caumun* Mod.HG. *gaumen*) fr. **gha(u)-mo-* or *-men-* (Gr. *χῆμῆ*?, *χαῦ-vo-s* *χάος*). Some assume such a loss of *u* before other consonants also. See, among others, Osthoff Morph. Unt. IV 311, Thurneysen Bezz. Beitr. VIII 285, Schulze Kuhn's Ztschr. XXVII 427 ff. Cp. also Indg. final *-ō* fr. *-ōu*, § 645, 1.

NASALS.

A. THE NASALS AS CONSONANTS.

Prim. Indg. period.

§ 189. The Indg. parent language possessed four different kinds of nasals; labial *m*, dental *n*, palatal *ṇ* (corresponding to *ĕ*), and velar *ṃ* (corresponding to *q*).

§ 190. Initial *m*.

Antesonantal. **māter* 'mother': Skr. *mātā*, Arm. *mair*, Gr. *μήτηρ*, Lat. *māter*, O.Ir. *māthir*, OHG. *muoter*, Lith. *motė* ('wife'),

O.Bulg. *mati*. **mṛ-tó-s* part. from rt. *men-* 'think' : Skr. *matá-s*, Gr. *αὐτό-ματο-ς*, Lat. *com-mentu-s*, Goth. *ga-munds*. **mṛ-ti-s* 'dying, death' : Skr. *mṛti-ṣ*, Lat. *mors* gen. *mortis*, Lith. *mirtl̃-s*, O.Bulg. *sŭ-mrĩtĩ*.

Anteconsonantal, probably before *n* and liquids. **mnā-* to *men-* 'think' : Skr. part. *mnā-ta-s*, Gr. fut. *μνή-σω*, Arm. *mna-m* 'I remain, expect' (Hübschmann Arm. Stud. I 43). **mlā-* 'pass away, wither' : Skr. pres. *mlāya-ti* part. *mlā-ta-s*, Gr. *βλά-ξ -κό-ς*, *βλη-χρό-ς*. 2. pers. sg. imper. Skr. *brū-hi* (fr. **mrūhi*) Av. *mrūdi* 'speak'.

§ 191. Medial *m*.

Intersonantal. Rt. *ṃem-* 'vomit' Skr. *vámami vámini*, Gr. *ἐμέω*, Lat. *vomō*, Lith. pl. *vemalaĩ* 'that which is vomited'. 1. pl. ind. pres. from rt. *bher-* 'carry' : Skr. *bhárā-mas*, Gr. *φέρει-μεν*, Lat. *feri-mus*, O.Ir. *berme* fr. **beromi* **bero-mes-i*, Goth. *baira-m*, O.Bulg. *bere-mŭ*. Formations with the nominal suffix *-mṛ-*, e. g. Skr. *dhāma* 'place', Gr. *ἀνά-θημα* 'that which is set up, votive offering' cpf. **dhē-mṛ*; Gr. *ῥίμα* 'throw', Lat. *sēmen* 'seed', cpf. **sē-mṛ*.

m in the combination *ṃm* as consonantal glide (§ 223, 4). **ṣṃm-o-* 'any one' : *sa-m-a-*, Gr. *ἀμ-ό-*, Goth. *sum-a-*.

Postconsonantal. *smeṣ-* 'smile, be astonished' : Skr. *smáy-a-tē* 'smiles', Gr. *φιλο-μμειδής* 'laughter-loving' *μειδάω* 'I smile', Lat. *mīru-s* 'wonderful', Engl. *smile*, Lett. *smīt* 'to laugh', O.Bulg. *smijati se* 'to laugh'. **ghor-mo-* : Skr. *ghar-má-s* 'glowing fire', Lat. *formu-s* OHG. *warm* 'warm', Pruss. *gorme* 'heat', cp. also Arm. *jerm* Gr. *θερμό-ς* 'warm' with a different grade of the root vowel. **aug-men-* : Skr. *ōjman-* m. 'power, strength', Lat. *augmen augmen-tu-m* 'increase', Lith. *augmũ*, gen. *augmeñs*, 'growth'. **gheṣ-men-* : Skr. *hēman-* 'winter', Arm. *jīun* (gen. *jeun*) 'snow' fr. **jivn* with *v* = *m* (§ 202), Gr. *χεῖμα* 'storm, pouring down of rain' *χειμών* 'winter'; hereto Lith. *žemà* O.Bulg. *zima* fem. 'winter' with *-mā-* for *-men-*. **kley-men-* **kley-mṛ-to-*, rt. *kley-* 'hear' : Skr. *śrómata-m* 'a hearing', Av. *sraoman-* n. 'hearing', Goth. *hlīuma*, gen. *hlīumins*, 'hearing', OHG. *hlīumunt* 'renown'.

Anteconsonantal. **gombho-s* : Skr. *jāmbha-s* 'tooth', Gr. *γόμφο-s* 'tooth, bolt', O.Bulg. *zqbŭ* 'tooth'. **rump-é-ti* 'he breaks' : Skr. *lumpáti*, Lat. *rumpit*. **gentu-s* 'a going' from rt. *gem-* 'go, come' : Skr. *gántu-ṣ*, Lat. *ad-ventu-s*. Nominal suffix *-mn-* : Skr. *nā-mn-ā* instr. to *nāma* 'name', Gr. *νόων-μν-ο-s* 'nameless', Goth. pl. *na-mn-a* 'nomina'. **dem-s* 'of a house' : Skr. Ved. *dán* (§ 198), Gr. *δεσ-* in *δεσ-πότης* (§ 204).

§ 192. Final *m*. Acc. sg. in *-m*, e. g. **to-m* 'the' : Skr. *tā-m*, Gr. *τό-ν*, Lat. *istu-m*, Goth. *þan-a*, Lith. *tā*, O.Bulg. *tŭ*; O.Ir. *fer n-* 'virum'. *-m* probably occurred after consonants only when the following word began with a sonant, e. g. acc. sg. **bhrátorm a-* beside **bhrátorm t-*, the former represented by Goth. *brōþar* (§ 659, 5), the latter by Gr. *φράτορα* (§ 233). **dīēm* 'serene sky' and **góm* 'bovem' have probably also arisen in this manner from anteconsonantal **dīēm*, **góm* (§ 188).

§ 193. Initial *n*. **neuo-s* **neūio-s* 'new' : Skr. *náva-s* *návya-s*, Arm. *nor* (with *r*-suffix), Gr. *νέο-s*, Lat. *ново-s*, O.Ir. *nūe*, Goth. *niuji-s*, Lith. *naūja-s*, O.Bulg. *novŭ*. Loc. pl. **ny-su* from *ner-* 'man' : Skr. *ny-ṣu*, Gr. *ἀνδρά-σι*. Perhaps anteconsonantal in the combination *nr-* : cp. Skr. *nr-asthi-* 'human bone' from *nar-* (dat. *nár-ē* Av. *nairē* were new formations after the st. form *nar-* in the acc. sg. etc.), Gr. *δρ-ώψ* · *ἄνθρωπος* Hesych., *ἀνδρ-ός* gen., *ἀνδρ-άγρια* 'the spoils of a slain enemy'.

§ 194. Medial *n*.

Intersonantal. **seno-s* 'old' : Skr. *sána-s*, Arm. *hin* (gen. *hnoy*), Gr. *ἐνῆ*, Lat. *senex*, O.Ir. *sen*, Goth. superl. *sinista*, Lith. *sėna-s*. Nominal suffix *-men-* : Skr. Ved. dat. (inf.) *vid-mán-ē* 'get to know', Gr. *ἴδ-μεν-αι*, Lat. *nō-min-ē*, Goth. gen. *na-min-s* 'nominis' (§ 660, 1), gen. Lith. *ak-meñ-s* (§ 664, 2) O.Bulg. *ka-men-e* 'lapidis'. **pḷ-no-s* **pḷ-no-s* 'full' (§§ 285, 306) : Skr. *pūrṇá-s* (ḷ), Av. *per'na-* (ḷ), Gr. *πολλοί* (ḷ), O.Ir. *lān* (ḷ), Goth. *fulls* (ḷ), Lith. *pilna-s* O.Bulg. *plŭnŭ* (ḷ). 3. sg. mid. **ty-nu-tái*, rt. *ten-* 'stretch, extend' (§ 224) : Skr. *ta-nu-té*, Gr. *τά-νν-ται*.

n in the combination *yn* as consonantal glide (§ 223, 4). **tyñ-u-* 'stretched, thin' : Skr. *tan-ú-ṣ*, Gr. *ταν-ύ-* *ταν-αός*, Lat. *ten-u-i-s*, O.Ir. *tan-a* Corn. *tan-ow*.

Postconsonantal. Rt. *sneigh-* 'snow': Av. *snaēžaiti* 'it snows', Gr. Hom. *ἀγά-ρυγος* 'much snowed upon' Hes. *νίφα* 'nivem', Lat. *ninguit nix*, O.Ir. *snechta* 'snow', Goth. *snáivs* Lith. *snėga-s* O.Bulg. *sněgŭ* 'snow'. **gnō-* 'know': Skr. part. *jñā-tá-s*, Gr. part. *γνω-τό-ς*, Lat. *gnōscō nōscō*, O.Ir. *gnāth* 'solitus', OHG. *becnuodelen* 'to give a countersign', O.Bulg. inf. *zna-ti*. **sup-no-* **sleep-no-* **suop-no-* 'sleep, dream': Skr. *svápna-s*, Arm. *kun*, Gr. *ὑπνο-ς*, Lat. *somnu-s*, O.Ir. *suan* O.Cymr. *hun*, O.Icel. *svæfn*, Lith. *sāpna-s*, O.Bulg. *sŭnŭ*. **qoi-nā-* 'requital' (rt. *qeḷ-*): Av. *kaēna-* 'penalty', Gr. *ποινή* 'requital, penalty, reward', O.Bulg. *cěna* 'pretium'.

Anteconsonantal. Rt. *bhendh-* 'bind': Skr. *bāndhana-m* 'a binding' *bāndhu-ṣ* 'relation', *περθερό-ς* 'father-in-law', Lat. *offendimentu-m* 'chin-cloth', Goth. *bindan* 'to bind'. Participial suffix *-nt-*: acc. sg. Skr. *bhārantam* 'ferentem', Gr. *φέρωντα*, Lat. *euntem*, Goth. *giband* 'datorem', Lith. *vėžanti* 'vehentem'. **ghans-* 'goose': Skr. *hṣā-s*, Gr. *χῆν χην-ός*, Lat. *ānser*, OHG. *gans*, Lith. *žąsī-s*; concerning O.Bulg. *gāsī* s. § 467, 2. Present st. suffix *-ny-*: Skr. 3. pl. *ci-nv-ānti* 'they string together' 3. sg. *ṛ-nv-ā-ti* 'brings, sends', Gr. Hom. *τίνω* Att. *τίνω* 'I atone for' fr. **ti-vF-*ω, Goth. *rinna* 'I run' fr. **ri-ny-*ō.

§ 195. Final *n*. Voc. of *n*-stems: Skr. *takṣan* Gr. *τέκτον* 'carpenter', Skr. *śvan* Gr. *κύων* 'dog'. Loc. sg. of the same st. class: Skr. *kār-man* ('business') *udān* ('water'), Gr. *δό-μεν* (inf. 'to give'), *αἰέν* ('ever' to *αἰών*). Ending *-ēn -ōn* in the nom. and acc. of neuter *n*-stems: Av. *nāmān* 'names', prim. Ar. **-ān*, Goth. *namō* (sg.) prim. Germ. **-ōn*, O.Bulg. *imę* (sg.) prim. Slav. **-ēn*. **en* 'in': Gr. *ἐν*, Ital. *en*, Germ. *in*, Pruss. *en* Lett. *i*, perhaps also O.Bulg. *-e* in the loc. sg. *kamen-e* (§ 219).

§ 196. In the primitive period *ñ* and *ṇ* only occurred before *k̄-* and *q-*sounds. Skr. pf. *ānāṣa* 'he attained', *āṣa-s* 'share, lot', Gr. *ἤνεγκο-ν* 'I brought', Lat. *nanc-īscor*, O.Ir. *con-icc* 'he can'. Rt. *añgh-* 'tie together, straiten': *āhas-* Av. *qzah-* n. 'distress, need', Arm. *anjuk* (*ancuk*) 'narrow', Gr. *ἄγχω* 'I tie, strangle', Lat. *angō angor*, O.Ir. *cum-ung* 'narrow', Goth. *aggvu-s* 'narrow' (with *v* from the other cases), O.Bulg. *qza* 'string,

fetter'. **penāqe* 'five' : Skr. *pāñca*, Arm. *hing*, Gr. *πέντε*, Lat. *quīnque*, O.Ir. *cōic* O.Cymr. *pimp*, Goth. *fimf*, Lith. *penkì* (-ì a Lith. new formation). Skr. *āñjas-* 'salve', *añj-ánti* 'they smear, anoint', Lat. *unguō*, O.Ir. *imm* (gen. *imme*, stem **imben-*) 'butter', OHG. *ancho* 'butter'.

The numerous deviations of the *k̄*- and *q*-sounds from their original place of articulation and the dependence of the nasals upon the particular organ producing the following explosives and spirants were accompanied, in the later individual developments, by frequent changes in the method of production of original *ñ* and *ṇ*.

Aryan.

§ 197. Skr. Av. O.Pers. prohibitive particle *mā* : Gr. *μή*. Skr. Av. O.Pers. *nī-* 'down' : OHG. *nī-dar*. Skr. *nāma* Av. *naṃa* O.Pers. *nāmā* 'name' : Lat. *nōmen*. Skr. *jāñghā-* f. Av. *zan̄ga-* m. 'heel-bone' : Goth. *gagga* 'I go', Lith. *žengii* 'I stride'. Skr. *pāñca* Av. *panca* 'five' : Gr. *πέντε*, Indg. **penāqe*.

Rem. Nasals before explosives and final *n* remained unwritten in O.Pers. e. g. *Kabujiya* for *Kamb-Καμβύσης*, 3. pl. *baratīy* for *barantīy* = Skr. *bhāranti* 'ferunt', *abara* for *abaran* = Skr. *ābharan* 'ferebant'.

§ 198. Prim. Ar. *-nt-* fr. Indg. *-mt-*. 3. sg. imper. Skr. *gāntu* Av. Gāp. *jantū*, prim. Ar. **jantu* (Skr. *g-* for *j-* after *gahī* etc., § 451 rem.) fr. Indg. **gem-t-u*, rt. *gem-* 'go'. Probably also prim. Ar. *-ns-* fr. *-ms-*. **ansa-* 'shoulder' (Skr. *āsa-s*) fr. **amsa-*, Indg. **omso-* : Goth. *ams* (st. *amsa-*). Skr. gen. sg. *dán* 'of a house' = Gr. *δεσ-* in *δεσπότης* (§ 204), Indg. **dem-s*. Skr. *ágan* 2. sg. pret. from *gam-* 'go', fr. orig. **é-gem-s*.

In like manner it may be conjectured that *n* in the combination *ānt* was dropped already in prim. Ar. in the syllable before the chief accent, e. g. gen. sg. *yāt-ás* beside acc. sg. *yānt-am*, part. of *yā-mi* 'I go'. The accent had here a similar influence as in *sat-ás* fr. **s-ūt-ás* beside *sānt-am* fr. **s-ūt-ṇi(m)* (§§ 228. 230), part. of *ás-mi* 'I am' (Hübschmann *Das idg. Vocalsyst.* 86).

§ 199. Sanskrit.

Sonant + nasal became nasalised sonant before prim. Ar. spirants, and those specially developed in Skr. *dāsas-* n. 'noble deed' fr. prim. Ar. **dansas-* : Av. superl. *dahišta-* = Skr. *dāsiṣṭha-*, Gr. *δῆρος* 'resolution, counsel' (§ 565). *āhas-* n. 'distress, need' fr. prim. Ar. **añhas-* : Av. *qzō* 'distress', Lat. *angor*, rt. *añgh-*. *dṛhāti* (beside *dṛhati*) 'he fastens' fr. prim. Ar. **dhṛñhāti*, rt. *dhergh-*, a present form like *kyntāti* 'severs, splits' rt. *qert-*, *piśāti* 'cuts straight, trims', rt. *peik-* (cp. § 221). *raḥayati* 'he hastens' fr. prim. Ar. **rañhayati* : Av. *renjayeiti* 'he quickens, hastens'.

Rem. 1. The nasal vowel both in Skr. and Iran. is generally considered as prim. Ar. But it is in itself very improbable that the *q* in Skr. *raḥayati* and Av. *maṣra-* (§ 200), which cannot be prim. Ar., is historically to be separated from the *q* in Skr. *dāsiṣṭha-*, Av. *dahišta-* etc. The question is decided by the fact that Skr. *dān* and *āgan* (§ 198) can only be explained fr. prim. Skr. **dans* and **agans* (not fr. **dqs* and **agqs*). The dropping of the *s* in *dān*, *āgan* was specially Skr., and older than the first appearance of nasalised vowels, s. § 647, 7. Forms like *piśānti* 'they bruise', *-īṣi* *-ūṣi* endings of the nom. acc. pl. (*harīṣi*, *āyūṣi*) cannot, by taking into consideration the change of *s* to *ṣ* in the prim. Ar. period, be considered as a proof that *n* was, already at this period, absorbed in the preceding vowel (cp. § 556, 1).

n became *ñ* after *j*, *c*. *yajñá-s* 'veneration' : Gr. *ἁγρό-ς* 'holy', Indg. **iañ-no-s*. *yācñá* 'desire, begging', a Skr. new formation to *yācati* 'he desires, begs'.

The same nasal became cerebral nasal (*ṇ*) after the cerebral sounds *ṛ*, *r*, *ṣ*. *mṛ-ṇā-mi* 'I bruise, beat in pieces' : Gr. *μάο-va-μαί* 'I fight', Indg. **mṛ-nā-mi*. *kṛṣṇá-s* 'black' : Pruss. *kirsna-* O.Bulg. *črñū* 'black', Indg. **qrsno-s*. This assimilation occurred also, under certain conditions (Whitney Skr. Gramm. § 189 ff.), when the two sounds were more widely separated e. g. part. mid. *bhāra-māṇa-s* : Gr. *περό-μενο-ς*. In this case the tongue, which had been brought into the cerebral position by *ṛ*, *r*, *ṣ*, retained this position until the production of the nasal.

Initial *mr* became *br*. *brū-* 'speak' : Av. *mrū-*. Cp. Gr. *βροτό-ς* fr. **μροτό-ς* etc. § 204. For exceptions like *mriyātē*

'moritur' cp. Osthoff Morph. Unt. IV 55. *-mbl-* from *-ml-* in *ambla-s* beside older *amlá-s* 'sour, sourness': cp. Lat. *amāru-s*.

Rem. 2. Is the change of *m̥* to *n̥* specially Skr.? The question must be raised on account of the 1. du. mid. injunct. *gānvahi*, part. perf. act. *jaganván* from *gam-* 'go', *raṇvá-* 'delightful' from *ram-* 'to be delighted'. The process might eventually have to be referred to prim. Aryan — corresponding examples from Iranian have not been handed down to us —, and since Indg. *ṇ̥* is the basis of the forms in question (§ 225), we must further ask whether the dental articulation was not already in existence before the consonantal nasal arose from *ṇ*.

§ 200. Iranian.

Sonant + nasal became nasalised sonant before prim. Ar. spirants and those which were specially developed in Iran. (§§ 473. 475). We have already mentioned Av. *dāhišta-* and *azō* in § 199. Other examples: Av. *maḥpra-* 'saying': prim. Ar. and Skr. *mān-tra-*; *aṇa-* 'reins': Skr. *an̥khāyati* 'he clings to something'; *taṣyā* 'stronger' fr. prim. Ar. **tañcyās*, compar. to *tancišta-* 'strongest'. Concerning the treatment of *ɣ* + *n* before spirants I may refer the reader to Bartholomae's Handb. pp. 14. 21.

It is a mere conjecture that a nasalised vowel was also spoken in these cases in O.Pers. The written language was not in a position to represent nasalised vowels as such.

Rem. We have seen in § 199, rem. 1. why the *q* in *dāhišta* etc. is to be regarded as a special Iran. and not a prim. Ar. development. Compare also Av. *praḥfā-* 'satisfied' = prim. Ar. Skr. **t̥pmphā-* (§ 475) with *m̥raḥdyāi* inf. 'stripe, strip off' = prim. Ar. **m̥r̥ñdhīāi* (pres. Av. *mar-zaiti*); in both instances *r̥q* is the representative of *r̥*.

Av. *n* before palatal explosives = Skr. prim. Iran. *ñ*. *panca* 'five': Skr. prim. Ar. *pāñca*. *renjayēti* 'he hastens': prim. Ar. **rañjhayati* (Skr. *raḥāyati*, § 199). Cp. Av. *-sc-* = Skr. *-śc-*, e. g. *manas ca* = Skr. *mānaś ca* (Gr. μένος τε) 'and mind', § 556, 2.

n became palatalised in Av. before *y* and *i*, *ī*. This modification is however only exhibited in a few Mss. *añya-*: Skr. *anyā-* O.Pers. *aniya-* 'other'. Verbal prefix *ñi-*: Skr. *ni-* 'down'.

Prim. Iran. final *-ān*, *-ām* became in Av. *-ā*, written *-a* and *-an* *-am*. 3. pl. conj. *barā* (*barān*, *barām*): Skr. prim. Ar.

bhārān 'ferant', prim. f. **bherant*. Acc. *ḥwā* (*ḥwām*) : Skr. prim. Ar. *tvām* O.Pers. *ḥuvām* 'thee'. Spellings like "*rvān-ō* beside "*rvān-ō* (nom. pl. of "*rvan-* m. 'soul'), *dāma* beside *dāma* 'creature' (= Skr. *dhāma* 'effect, stead, place'), where *ṛ* is likewise to be read as *ā*, show that *-ān*, *-ām* were the previous stages. Cp. Bartholomae Handb. §§ 14. 78, 4. 79, 3.

Armenian.

§ 201. *mi* 'lest' : Skr. *mā* Gr. *μή*. *armukn*, gen. *armkan*, 'elbow, bow' : Lat. *armu-s*, Goth. *arms*.

nist 'seat' *nsti-m* 'I sit' : Skr. *nīdā-s* 'place of rest', Lat. *nīdu-s*, OHG. *nest* 'nest', Indg. **ni-zd-o-* from **ni-sed-* 'sit down'. *nu* 'daughter-in-law' : Skr. *snuśā* OHG. *snur* O.Bulg. *snūcha* etc. *kun* 'sleep' fr. **kuvn*, **kupn* (K- fr. *su-*, § 162) : Skr. *svāpna-s* Lat. *somnu-s*. *ar-nu-m* 'I take' : Gr. *ἄρ-νν-μαι*.

anjuk (*ancuk*) 'narrow' : Skr. *āhū-ś* etc., rt. *añgh-*. *hing* 'five' : Skr. *pāñca* etc., Indg. **penqe*. Cp. § 196.

§ 202. The change of *m* to *v* (*u*). *anun* (gen. *anuan*) 'name' fr. **anvan*, **anman* (cp. § 232). *jiun* (gen. *jean*) 'snow' fr. **jivn* : Skr. *hēman-*, Gr. *χεῖμα χειμών*. See Hübschmann Arm. St. I 75.

m and *n* disappeared before *s*. *us*, gen. *usoy*, 'shoulder' : Goth. *ams* m., Skr. *āsa-s*, Umbr. *onse* 'in umero'. *mis*, gen. *msoy*, 'flesh' : Goth. *mimza-* n., O.Bulg. *mēso*. *amis*, gen. *amsoy*, 'month' : Lat. *mēns-i-s*, O.Ir. gen. *mīs* (prim. Kelt. st. **mēns-*). Acc. pl. *eris* 'tres' : Goth. *pri-ns*, Gr. Dor. *τρεῖς* fr. **τρι-νς*; concerning the initial element of *eris* s. § 263. Acc. pl. *z mards* 'homines' fr. **myto-ns* : cp. Goth. *vulfa-ns* 'lupos', Gr. Cret. *νόμο-νς* 'leges'.

Final postvocalic *-m* disappeared. *z mard* 'hominem' : Skr. *mytā-m*, Lat. *equo-m*, Gr. *βροτό-ν*. Cp. § 651, 2.

Greek.

§ 203. *μὲ* 'me' : Goth. *mi-k*, Skr. *mām*, Lat. *mē*. *ἡμι-* 'half' : Skr. *sāmi-*, Lat. *sēmi-*. *ἄκμων* 'anvil' : Skr. *āśman-* 'stone, thunderbolt'. *ἀμφί* 'about' : Lat. *amb-*.

νέφος 'cloud' : Skr. *nābhas* 'cloud, atmosphere', O.Bulg. *nebo* 'atmosphere sky'. *πότνια* 'mistress' : Skr. *pātñī*. Dor. *φέρωντι* (Att. *φέρουσι*) 'they bear' : Skr. *bhāranti*.

ἐνεγκεῖν 'to bring' : Skr. pf. *anāśa*. *ῥγχο-ς* 'hook' : Skr. *anākā-s*. *πέντε* 'five' : Skr. *pāñca*; *πέμπτο-ς* 'fifth' : Lith. *peñkta-s*.

Rem. The guttural nasal was, as it seems, originally represented in writing by *ν*. Thus inscrip. e. g. *ἄνκυρα*, *ἐγγύς*. The representation of it by *γ* first made its appearance, after the *g* in *gn*, *gm* (*οτυγνό-ς*, *ἀγμό-ς*) had become *ṇ* (§ 492).

§ 204. Prim. Greek changes.

-ντ- from *-mt-*. *γέντο* 'he grasped' to *ῥγ-γεμος* · *συλλαβή* Hesych. *ἄν-τλο-ν* 'bilge-water', to *ἀμάω* 'I gather in'. Probably also *-νς* from *-ms*. *ένς* (Cret., thence Att. *εἶς*) fr. **sem-s* : cp. *μῶνυξ* fr. **σμου-νυξ*, *όμ-ό-ς*, Lat. *sem-el*.

-νι- from *-mī-*. *κοινό-ς* 'common' fr. **κονιχο-ς* **κομι-χο-ς* : Lat. *cum*. Cp. *βαίνο* 'I go' fr. **βανιω*, Indg. **gmi-ḡō* : Lat. *veniō*. On the *i*-epenthesis s. §§ 131. 639.

-μβρ-, *-μβλ-*, *-νδρ-* fr. *-μρ-*, *-μλ-*, *-νρ-*. The initial nasal disappeared with the development of the explosive. *ἄμβροτο-ς* 'immortal', *βροτό-ς* 'mortal'¹⁾; **μοροτό-ς* was a contamination form of *μοροτό-ς* Hesych. (Skr. *mārta-s*, Indg. **mórto-s*) and **μρατό-ς* (Skr. *mṛtá-s*), and *μοροτό-ς* itself was also such a form with regard to its accent. *μέμβλωκα*, *βλώσκω* ('I come') with **μλω-* = orig. **mľ-* (§ 306), aor. *ἐμολο-ν*. *βλίττω* 'I cut out the comb of bees' to *μέλι μέλιτος* 'honey'. *ἀνδρ-ός -ων* (nom. *ἀνίρ* 'man'), *δρ-ώψ* · *ἄνθρωπος* Hesych., *δρο-τήτα* acc. 'manhood' (thus with Clemm probably to be read for *ἀνδροτήτα* in Hom. II 857, X 363): cp. Skr. *nr-ashti-* 'human-bone'.

-λν- became *-λλ-*. When the preceding vowel was short, so called compensation lengthening took place later (cp. § 618). Prim. Gr. **γ^hολνεται* (prim. f. **gľ-né-tai*, § 306) became Lesb. *βόλλεται*, Att. *βούλεται* and prim. Gr. **γ^hελνεται* (prim. f. **gél-ne-tai*) Thess. *βέλλεται* (concerning *β-* cp. § 428 rem.) Dor. *δήλεται*, Locr.

1) *ἄ-βροτο-ς* beside *ἄ-μβροτο-ς* was a new formation from *βροτό-ς*. Cp. Prākr. *a-riṇa-* 'guiltless' as a later compound beside *an-irīṇa-* = Skr. *an-ṛṇa-*.

Delph. δέλεται 'he wishes', rt. *gel-*. Hom. οὔλο-ς 'crisp, fleecy' fr. **folno-s*, prim. f. **uļmo-s*: Skr. *ūrṇā* fr. **uļ-na* (§§ 151. 157. 306). Lesb. ἀπ-έλλω Dor. φήλω Hom. εἶλω 'I press tight' fr. **fel-vo*. Later, but also probably already prim. Gr., was the assimilation of -*lv-* to -*ll-* in ὀλλῶμι 'I destroy' fr. **ól-vū-mi*; ἐλλός-ς 'a young deer' fr. **él-v-o-s*, cp. ἔλα-γο-ς fr. **elṇ-bho-s*, Lith. *éln-i-s* m. 'stag', O.Bulg. *jelen-ī*, gen. *jelen-e*, 'stag'; ὠλλέν- τήν τοῦ βραχίονος καμπήν (Hesych.) fr. **ól-v-o-n*, to ὠλήν -ένος (cp. the author Morph. Unt. II 173).

Rem. 1. If, as we conjecture, the -*ll-* in the three last named words was likewise already prim. Greek, the -*ll-* in βύλλομαι etc., before 'compensation lengthening' took place, was pronounced somewhat differently from that in ὀλλῶμι etc. The forms πίλναμαι (to πέλαις) and πιλό-ν- φαίον Hesych. (to πελός, πελιός) may have only come into existence after the law, whereby **ól-vū-mi* became ὀλλῶμι, had ceased to operate.

v disappeared before *σ* + consonant without 'compensation lengthening'. κесτό-ς 'pierced, embroidered' fr. **kensto-s*, to κεντέω. δε-ς- in δεσ-πότης fr. **den-s*, Indg. **dem-s* 'of a house': Skr. *dān*. 3. pl. imper. mid. γερόσθων fr. **geronsthon*. Ἀθῆνᾰς 'towards Athens' fr. **āthānāz-de*. δικασπόλο-ς 'law-giver', fr. **dikan-s-polos*, an irregular compound with acc. pl.; likewise μογιστόκος 'causing pains' fr. **mogon-s-tokos*. Here belong also the various dialectical forms of the acc. pl. of -*o-* and -*a-* stems, as τός, θός, τᾶς καλᾶς (beside τόνς τάνς, τούς τᾶς) and ἐς from ἐνς 'into', which arose before initial consonants: the regular forms were τὸς παῖδας beside τόνς (τούς) ἄνδρας, ἐς τοῦτο beside ἐνς (εἰς) αὐτό. Lastly πτίσσω 'I pound' fr. **ptin-s-cho*: Lat. *pṛnsiō*, and Hom. νίσσομαι 'I come' fr. **ni-v-s-cho-mai* (redupl. pres.), beside νέομαι fr. **nes-o-mai*, cp. νόσ-το-ς, rt. *nes-* (§ 563, 4).

Rem. 2. Where in the course of the individual dialects *νσ* + cons. came into existence again, those dialects, in which *ν* disappeared before *σ* with 'compensation lengthening' (cp. §§ 205. 618), show this lengthening. Thus Att. ἔσπεισμαι ἔσπειντο (from σπένδω 'I deal out') was a new formation after ἔσπεισα (Cret. still ἔσπενσα) and σπείσω; Ion. πείσμα 'rope' fr. **pen-(θ)-sma*, a new formation for prim. Gr. **penθ-ma* (cp. Lat. *offendimentu-m*), like ζῶμα for older ζῶμα etc.

-*m* became -*v*. Acc. sg. τόν 'the': Skr. *tā-m*, Lat. *is-tu-m*; ὄν 'sheep': cp. Skr. *āvi-m*. Gen. pl. ἵππων 'equorum': cp. Skr.

Ved. *dēvām* 'deorum', Lat. *virum*. 1. sg. impf. ἔφερον 'I carried': Skr. *ābhara-m*. ἔν 'unum' fr. **sem*; concerning ἐνς in this §, cp. p. 170. χθών 'earth', χιών 'snow' fr. *χθωμ, *χιωμ: cp. χθαμ-αλό-ς, Skr. *kṣām-* and Lat. *hiem-* Gr. δύς-χιμο-ς. The ν in ἐν (and ἐνς), χθών, χιών was transferred to the other cases also: ἐν-ός, χθον-ός, χιον-ός for the regular forms *ἐμ-ος, *χθομ-ος, χιομο-ς.

Concerning prothesis before initial nasals as in ἀμέλγω 'I milk': Lith. *mélžu* s. § 626.

§ 205. Individual dialectical peculiarities.

The uniform omission in writing of the nasal before consonants in Cypr. and Pamphyl., permits the conclusion that a nasal vowel was spoken in these dialects. Cypr. *o-ka-to-se* = Ὀ(γ)κα(ν)τος, *a-ti* = ἄ(ν)τί, *pe-pa-me-ro-ne* = πε(μ)φαμέρων; thus also *to-ko-ro-ne* = τὸ(γ) χωρον, *na-o-to-te* = ναὸ(ν) τὸ(ν)δε etc. (§ 653, 3). Pamph. *πέδε* = Att. *πέντε* (§ 487).

Prim. Gr. -*πμ*- became -*ππ*- in Lesb., elsewhere -*μμ*-. Lesb. ὄππατα pl., Hom. etc. ὄμμα 'eye', to ὄπ-ωπ-α ὄφομαι. Lesb. ἄλιππα beside Att. ἄλειμμα 'salve', to λίπ-α ἀλείφω.

ν only remained in Cret. and Argive before -*ς* and the voiceless -*σ*- which arose from assimilation (§§ 489. 490). τό-νς 'the': Goth. *þa-ns*, Indg. **to-ns*. θένς fr. θεντ-ς, part. to θεῖναι 'to place' πρέπονσα fr. *πρεποντ-χα, fem. to πρέπων 'becoming, fitting'. ἔσπενσα fr. *ἔσπεννισα, aor. of σπένδω 'I pour out'. πρέπονσι fr. *πρεποντ-σι loc. pl. to πρέπων. μηνσί fr. *μηνσ-σι loc. pl. to gen. sg. Lesb. μῆνν-ος 'of a month'. Elsewhere *ν* disappeared, since in most dialects it became with the preceding vowel a long nasal vowel (i. e. short vow. + *ν* became long nasal vowel) and then the nasal sound disappeared. Dor. τώς, πρέπωσα, θής, ῆς (ἐνς); Ion. Att. τούς, πρέπονσα, θείς, εῖς; Dor. Att. μηνσί, τᾶς (τάνς), πᾶσα (πάνσα); Att. 3. pl. ἄγονσι, ἄγωσι (Dor. and prim. Gr. ἄγοντι, ἄγωντι). *i*-diphthongs arose in Lesb.: τοίς, πρέποισα, θείς, εῖς, ταίς, παῖσα, ἄγοισι, ἄγωσι; here the *s*-sound must have been the chief factor in the generation of the *ι*. In Elean, *i*-diphthongs arose in the endings -ονς, *ανς, prim. El. -ονς, -ανς (cp. Osthoff Zur Gesch. d. Perf. 26 ff.): τοίρ, καταξίαιρ, but διδῶσσα, πᾶσα.

Rem. 1. The stage of nasalisation of the vowel which preceded entire loss of *ʳ* is perhaps represented by the Cretan and Argive of the historical period. For we are justified in supposing that the pronunciation was nasal vowel (no longer vowel + nasal), but that the spelling with *ʳ* was retained from an older period. Cp. French *tonsure*, *mensonge*.

Rem. 2. Arcadian preserved the *ʳσ* which arose by transition of *-ʳι* to *-σι* (e. g. conj. *πτεῦωνσι*), but had alongside it e. g. acc. pl. *δραχμας* 'drachmas'. Consequently the activity of the law which produced *δραχμας* was already extinct at the time *-ʳσι* arose from *-ʳι* in this dialect. Cp. in Attic the new forms *θίμανσις*, *ὑφανσις* etc. which originated after the completion of 'compensation lengthening' (*πᾶσα* from *πᾶσαα*).

Rem. 3. *ει* and *ου*, produced by 'compensation lengthening', never were diphthongs. The *ει* in Ionic-Attic and Bœot. *εἷς θείσα* is only graphically like the *ει* in Lesb. *εἷς θείσα*; the latter was a diphthong. Cp. the other phenomena of compensation lengthening § 618.

Italic.

§ 206. Lat. *magis*, Umbr. *mestru* 'maior', Osc. *mais* 'magis': Skr. *mahān* 'magnus'. Lat. *homō*, Umbr. *homonus* 'hominibus', Osc. *humuns* nom. 'homines': Goth. *guma* 'homo'. Lat. *termō termen*, Umbr. *termnom-e* 'ad terminum', Osc. *te-remnuattens* 'terminaverunt': Skr. *tārman-* n. 'point of the sacrificial rod', Gr. *τέρμων* 'boundary' *τέρμα* 'goal'. Acc. sg. Umbr. *tota-m*, Osc. *topta-m* 'civitatem', Lat. *equa-m*: Skr. *áśvā-m* 'equam'.

Lat. *ne nē*, Umbr. Osc. *nei-p* 'neque, neve, non': Skr. *ná* Goth. *ni* Lith. *nė* 'non'. Lat. *dō-nu-m*, Umbr. *řunu* Osc. *dúnúm* 'donum': Skr. *dā-na-m* 'gift'. Lat. *cor-n-ix*, Umbr. *cur-n-ac-o* 'cornicem': cp. Gr. *κορών-η* 'crow'. 3. pl. Lat. *feru-nt*, Umbr. *furfa-nt* 'februant', Osc. *kara-nter* 'vescuntur': Skr. *bhāra-nti* 'ferunt'. Lat. *mēns-i-s*, Umbr. *menzne* 'mense': Gr. Lesb. *μηνν-* Att. *μην-* fr. **mēns-*.

Lat. *angō angor*: Gr. *ἄγχω* 'I press tight, strangle', Av. *qzah-* 'distress', rt. *añgh-*. Lat. *quīnque*, Umbr. *pumperias* Osc. *pumperias* 'quintiliae', Osc. *Πομπτιες* 'Quinctius', prim. Ital. **kuerakue* fr. **perakue* (§ 336): Skr. *pāñca*, Indg. **perqe*.

Rem. The guttural nasal is represented in the Ital. languages by the letter *n*.

§ 207. Prim. Italic changes.

Prim. Ital. *-mt-*, the *m* of which goes back partly to Indg. *ʷ* (§§ 237. 238), became in the prim. Ital. period *-nt-*, and in like manner *-md-* became *-nd-*. This change seems also to hold good for the *-mt-* which arose later in the course of individual dialects. Lat. *con-trā* *contrō-versu-s*, Osc. *con-trud* (prep. with loc.) 'contra', to Lat. *cum* Osc. *com*. Lat. *ad-ventu-s* : Skr. *gántu-ṣ* 'a going', Indg. **gém-tu-s*; Lat. *in-ventu-s* : Skr. *gatá-s*, Gr. *βατό-ς*, Indg. **gm-tó-s*, rt. *gem-* 'go'. Lat. *centum* : Lith. *szimta-s* 'hundred', Indg. **kmtó-m*. O.Lat. *quan-de* 'quam', Umbr. *pane* 'quam', Osc. *pan* 'quam', to *quam*. Lat. *quon-dam*, Umbr. *ponne pone pune* Osc. *pún pōn* 'quom', to *quom*. Further Lat. *fren-dō* beside *frem-ō* (cp. § 349), *septen-triōn-ēs* *septen-decim* (*septem*), *vērūn-tamen* (*vērūm*), *eun-dem* (*eum*), *vēmūn-dō* (*vēmūm*), *quan-diū* (*quam*); Umbr. *hon-dra* 'infra' *hon-domu* 'infimo', Osc. *hu[n]-truis* 'inferis' to Lat. *hum-u-s* Gr. *χαυ-αί* (Danielsson Pauli's *Altit. Stud.* III 143), Umbr. *desen-duf* 'duodecim'. Cp. also Osc. *Púntiis* beside *pontis* 'quinquies' and *Πομπτιες* (latinised *Pontius Pomptius*) : Lat. *Quinctiu-s*.

Many exceptions to this law were created through analogy and new formations. E. g. Lat. *quamde*, *quamdiū*, *vērūntamen* after the simple forms *quam*, *vērūm*. Of later origin are also Lat. *ēm-p-tu-s*, Umbr. *emps* 'emptus' (cp. *da-etom* 'demptum'), Lat. *sūm-p-tu-s* with excrement *p* (§ 208).

Further **kūom kye* probably also became **kūom-kue* already in prim. Ital. (Lat. *quomque cunque*, Umbr. *pumpe*) etc. Cp. also Lat. *singulu-s* fr. **sem-clo-s*, *prīnceps* fr. **prīm(i)-ceps* (§ 633). Lat. *quomque cumque* was formed in the same manner as *quamde*.

Analogously *-ms-* probably became *-ns-*. Cp. § 568 rem., § 570 concerning *tenebrae*.

§ 208. Latin.

-mī- became *-nī-*. *quoniam* fr. **quom-iam*. *con-jectu-s*, *con-jungō*, *con-jūrō* fr. **com-ī-*. *veniō* fr. **(g)uem-iō*, Indg. **gm-iō*, from rt. *gem-* (§ 239).

-*p*- as glide in -*mpt*- (§ 207), -*mps*-, -*mpl*- : *ēm-p-tus*, *sūm-p-si*, *ex-em-p-lum*. Cp. Umbr. *emps* 'emptus'.

• -*ln*- became -*ll*-. *colli-s* fr. **col-n-is* : Lith. *kāt-n-a-s* 'mountain', Gr. *κολων-ός* 'hill', orig. st. form **qolen*-. *pollen* (beside *polen-ta*), developed fr. **polen*, gen. **poln-os* (see W. Meyer Kuhn's *Ztschr.* XXVIII 162) : Gr. *πάλη* 'finest meal' or 'flour'. *pullu-s* 'young animal, young' fr. **pol-n-o-s* : Goth. *fula*, gen. *fulin-s* 'foal', from a stem **pll-en*-. *vellus* 'fleece' : Lith. *vīlna* 'a single hair of wool' etc. The reason is not clear why assimilation did not take place in *volnus*, *ulna*, *pōpulus* and others.

-*nl*- became -*ll*- in diminutives : *asellu-s* fr. **asen-lo-s*, to *asinu-s*; *homullu-s* fr. **homōn-lo-s*, cp. *homun-culu-s*.

Rem. These affections may partly or entirely be ascribed to the prim. Ital. period. The Umbr.-Samn. dialects do not furnish sufficient material for the determination of the chronology.

Prim. Lat. -*ns*-. The nasal was often unwritten already in the oldest inscriptions, e. g. *mesibus*, *cesor*, *cosol*, *cosentiont*; further also in writers *vicesimus* and *vicensimus*, *quoties* and *quotiens*, *pisare* and *pinsare* etc. Combining this with the clearly ascertained fact that short vowels were spoken long before -*ns*- (§ 619), it follows that a long nasal vowel was spoken, perhaps leaving the sound of a reduced consonantal element. It is not possible to gain an insight into the course of the process and its extent, owing to the inconsequence and inaccuracy in the representation of the sounds, and the possibility that *n* as full consonantal nasal was restored from other forms of the form-system (cp. e. g. *scānsum*, *dēfēnsor* *dēfēnstrix*)¹). In two cases the nasal was apparently entirely lost already at the beginning of historic records.

1. In the case of final -*ns*, when -*s* had not arisen from an older -*ts* (cp. § 501). Acc. pl. *equōs*, *ovīs*, *fructūs* fr. **-o-ns*, **-i-ns*, **-u-ns*, *pedēs* fr. **-ens* = Indg. **-ns* (§§ 224. 238). Nom. *sanguīs* fr. **sanguins*, a new formation for older neut. *sanguen*.

2. In forms with prim. Lat. -*nsl*-. *pīlu-m* 'pestle' fr. **pīnslo-m*. *prēlu-m* 'press' fr. **prenslo-m*, older **premslo-m* (cp. *cōnsequor*

1) Cp. among others Seelmann *Die Aussprache des Latein* p. 273 ff.

fr. **com-sequor*, inscrip. *quansei* and § 207 extr.). *alu-m* 'wild garlic' (hereto *halāre*, *an-hēlare* with inorganic *h-*, s. Osthoff Zur Gesch. d. Perf. 491) from rt. *an-* 'breathe', fr. **an-slo-* or **ans-lo* (cp. O.Bulg. *qch-ati* 'to exhale' fr. **on-s-ātī*, §§ 219. 588 rem. 2). *scāla* 'ladder' fr. **scan(t)slā*, to *scandō*. *an-hēlō* fr. **an-(h)enslō*, like *scandō* : *cōn-scendō* (Osthoff loc. cit. 115), shows that the dropping of the nasal in the combination *-nsl-* is younger than the weakening of *a* to *e* in the second member of compounds. Here probably also belongs *ilicō* fr. **in slocō*, § 570.

Prim. Lat. final *-m* (partly coming from Indg. *-m* § 238). The orthography fluctuated already in the oldest inscriptions, e. g. *pocolo* beside *pocolom poculum*. The sound was greatly reduced before words beginning with a vowel. After the close of the vowel in the last syllable there only followed a very imperfect lip-closure. Hence the vowel elision in poets, as Verg. Aen. VIII 386 *fērru(m) acuánt*. Cp. Danielsson Zur Altital. Wortforschung (a separate reprint from Pauli's Altital. Stud. III and IV) p. 14, Seelmann Die Aussprache d. Lat. 356 ff.

§ 209. Umbrian and Oscan.

Prim. Umbr.-Osc. *-ns-* became *-nts-* (cp. *-mps-* in Umbr. *emps* 'emptus'). This sound-combination was expressed in the native alphabet by *-nz-* (or *-nzs-*). Umbr. *menzne* 'mense'. *anzeriatu* (beside *anseriato*) 'observatum', cp. Lat. *am-putāre an-quirere*. *uze* (beside *onse*; on the omission of the *n* in *uze* see below) loc. 'in umero': Goth. *ams* m. 'shoulder', Indg. **omso-*: cp. however also § 568, 3 for the Ital. form of this word. Osc. *kenzsur keenzstur* (beside *censtur*, *censaum*) 'censor'.

-mbr- fr. *-mr-* is probably to be assumed in Umbr. *ambr-* beside Osc. *amfr-*, to Lat. *amb-* Gr. *ἀμφί*. Either **amfer*, a new formation after *ander* 'inter' etc., first became **amer-* (cp. *umen* fr. **umben*, § 432a.) by assimilation, then **amr-*, *ambr-*, or else **amer-* was an Umbr. new formation from *am-*, which then led to *ambr-*.

Prim. Ital. *-ns* became Umbr. *-f*, Osc. *-ss*. Umbr. acc. pl. *abrof* 'apros' eaf 'eas' avif 'aves', *trahaf traf* 'trans'; Osc. acc. pl. *feihúss* (st. *feiho-*) 'fines', *víass* 'vias'. Likewise Umbr. *zeřef* 'sedens' fr. **-ens* = **-ents*. Cp. Danielsson Pauli's *Altit. Stud.* III 146 ff. Umbr. *Ikuvins* 'Igovinus', Osc. *Púmpaiians* 'Pompeianus' etc. show that these changes are older than the dropping of short vowels before the *-s* of the nom. sg. Regarding Umbr. *f*, which goes back in the first instance to *p*, cp. *trahvorfi* 'transverse' (§ 501).

That *n m ɲ* were reduced in Umbr. before explosives and spirants, follows from their being frequently omitted in writing. *us-tetu* beside *ustentu* 'ostendito'. Stem *azeriato-* *aseriato-* beside *anzeriato-* *anseriato-* 'observatus'. *hutra* beside *hondra* 'infra'. *dirsas* beside *dirsans* 'dent'. *Saše* beside *Sansie* voc. 'Sanci'. *apr-etu* beside *ampr-eltu* 'circumito' *ambr-efurent* 'circumierint'. *iveka* beside *ivenga* 'iuvenas'.

In like manner prim. Ital. final *-m* and *-n* must have been greatly reduced in Umbr., perhaps only a nasalised vowel was spoken. For they often also here remained unwritten and the letter *m* stepped into the place of *n*: *-e* beside *-en* 'in', *nome* 'nomen', *puplu poplo* beside *puplum poplom* 'populum'; *-em* 'in', *numem* 'nomen'.

In Osc., *-n* is uniformly written and *-m* only seldom omitted, mostly in later monuments, e. g. *vía* (beside *víam*) 'viam', *ísídu* (beside *ísídum*) m. 'idem', *íní* (beside *íním inim*) 'et'. If *fíísíním* (Zvetaieff *Syll.* n. 17, 8) contains *-ím* = *-ín* 'in', the same sound-development is to be assumed as in Umbr.

For the development of anaptyctic vowels from nasals in Oscan see § 627.

Old Irish.

§ 210. *menme*, gen. *menman*, 'mind' (prim. f. **men-ə-men-* § 110): cp. Skr. *mán-man-* n. 'mind', Gr. *μένος* 'mind', rt. *men-nem* (gen. *nime*) n. 'sky', *nemed* n. 'sanctuary' (Gall. *nemeto-n*): Skr. *námati* 'he bows, bends', rt. *nem-*.

Particle *nu no* : Skr. *nú*, Gr. *νῦ*, Indg. **nú* 'now'. *canim* 'I sing' : Lat. *canō*, Goth. *hana m.* 'cock'. Redupl. pf. *ro-se-scaind* 'he leapt' : Skr. *skándāmi* 'I jerk, leap', Lat. *scandō*. *snām* inf. 'swim' : Skr. *snā-ti* 'he bathes himself'.

cum-ung 'narrow' : Av. *qzah-* 'distress', rt. *añgh-*. *com-boing* 'confringit' : Skr. pf. *babhāñja* 'fregit' *pra-bhaṇḡá-s* 'breaker, pounder', rt. *bhaṇḡg-*.

Rem. The letter *n* is employed to represent *ṇ* in Keltic as in Latin.

§ 211. It may be concluded that *-mt-* became *-nt-* in prim. Keltic from Cymr. Bret. *cant* O.Ir. *cēt* 'hundred' : Lith. *szimta-s*, Indg. **kmtó-m*, cp. § 212.

Indg. *-m* became *-n* in prim. Kelt. Gall. nom. acc. sg. neut. *νμῆτο-ν* *nemeto-n* 'sanctuary' (Zeuss-Ebel p. 225). The nasal was often retained in Irish before vowels and mediae at the beginning of the following word, when the preceding vowel had disappeared. Acc. sg. *fer n-aile* 'virum alium' fr. **uīro-n*. Under the same conditions the *-n* from prim. Kelt. *-en* = Indg. *-n* and *-ŋ* was also retained. M.Ir. *deich m-bai* 'ten cows' fr. **deken* : Skr. *dáśa*, Lat. *decem*, Indg. **dekṇ*. M.Ir. *nōi n-ubla* 'nine apples' fr. **noŋen* : Skr. *náva*, Indg. **neŋn*. Cp. § 658, 2.

§ 212. Prim. Kelt. *n* (partly going back to Indg. *n*, *ñ*, § 243) disappeared in Irish — with 'compensation lengthening' when the preceding vowel was short — before *t*, *c*, *s* (*f*). The vowel was then shortened in unaccented syllables, afterwards became irrational and entirely disappeared under certain conditions (§§ 613. 634).

sēt Cymr. *hynt* Bret. *hent* 'way' : Goth. *sinþs* 'a going, a time'. *tēt* Cymr. *tant* 'string' : Skr. *tántu-ṣ* 'thread, string', rt. *ten-*. *cēt* Cymr. Bret. *cant* 'hundred' : Lat. *centu-m*, Lith. *szimta-s*, Indg. **kmtó-m* (§ 211). *ēc* 'death' Bret. *ancou*; according to Windisch to Skr. *naś-*, Gr. *νέκυ-ς*. *brēc* 'lie, deceit' : Skr. *bhrqṣa-s* 'fall, loss'. *ēcath* 'hamus' : Skr. *aṇkā-s* 'hook', Gr. *ἀγκών* 'bow' *ὄγκο-ς* 'bow, crook, bend', Lat. *ancu-s uncu-s*, OHG. *angul* 'angle'. *ēcen* 'necessity, constraint' : Gr. *ἀν-άγκη*. *gēis* (gen. du. M.Ir. *gēsi*) 'swan' : Skr. *haś-á-s* OHG. *gans* 'goose'. Fut. st. *sēs* fr.

**syen(t)s-* i. e. **syend*+*s-* (*syend-* 'drive, hunt'), 1. sg. *cu-du-sē[s]-sa*, fut. sec. 1. sg. *du-sēsainn* (Thurneysen Kuhn's Ztschr. XXVIII 148). Gen. sg. *mīs* (nom. *mī*) 'mensis', st. **mēns-* : Gr. Lesb. gen. sg. *μῆν-ος*.

Shortening and disappearance. 3. pl. *bérit* 'ferunt' fr. **béront(i)*, prim. f. **bhéronti* : Skr. *bhāranti*, Gr. Dor. *φέρωντι*. *ér-mitiu* 'honor' (gen. *ér-miten*) fr. **mētiu*, **mentiō*, *fóimtiu* 'a remarking' fr. **fó-mētiu* etc. : Lat. *mentiō*; a further formation with *n* from Indg. **mṇ-tī-*, Skr. *matī-ṣ*, Goth. *ga-munds* (st. *ga-mundi-*), rt. *men-dér-met*, gen. *dér-mait*, 'a forgetting', *fór-mat*, dat. *fór-mut*, 'envy' from stem **mēto-*, **mento-* : Lat. *com-mentu-s*, Gr. *αὐτόματο-ς*, Skr. *matá-s*, from the same rt. *men-*. *óac óc* 'young' fr. **óec*, Cymr. *ieuanc*, prim. Kelt. **iou̯əko-s* : Skr. *yuvaśá-s*, Lat. *juvencu-s*, Indg. **-ṇ-kó-s* (§§ 137. 174). Acc. pl. *fíru* 'viros', *fáthi* 'prophetas' fr. **fírō(s)*, **fáthū(s)*, prim. Kelt. **uiro-ns*, **uāti-ns* : cp. Goth. *vaira-ns*, *gasti-ns*.

Rem. Zimmer Kuhn's Ztschr. XXVII 449 ff. shows that first an assimilation of the explosive to the nasal took place in the prim. Ir. combinations *nt*, *nc* in such a manner that the former became voiced. Zimmer, p. 467, says that the new sound probably did not become a pure media in the first instance, but *dt*, *gc*. This change was generally not expressed in the writing of O.Irish, while in Mod. Ir. orthography it is expressed, e. g. *eug* 'death' = O.Ir. *éc*, *ceud* 'hundred' = O.Ir. *cét*. Cp. §§ 513. 658, 2.

Where *m* came together with a following *r*, *l*, an excrescent *-l-* was developed, and then initial *m* became absorbed. *brechtrad*, older *mrechtrad* 'varietas' : to Lith. *márğa-s* 'variegated'. *blicht*, older *mblicht* *mlicht* 'milk', *bligim*, older *mbligim* 'I milk', to *melg* 'milk', Gr. *ἀμέλω* Lat. *mulgeō* O.Bulg. *mlūzq* 'I milk', rt. *melg-*. Cp. § 298. *blāith*, older *mlāith* 'tender, soft' (st. **mlāti-*), to *melim* inf. *bleith* 'molo'; cp. § 306.

Original intervocalic *m*, written *mh*, is in Mid. and Mod. Irish a nasalised labial spirant, e. g. *nemh* 'sky'. That this affection already took place in the O.Ir. period, follows from the fact that *mh* appears in the Modern language in words, where the nasal already in O.Ir. no longer stood directly after vowels; O.Ir. *amprom* fr. Lat. *improbus* also speaks for the great antiquity of this change, since *m* must here have represented a

spirant. The change of *m* to a spirant is probably likewise to be also assumed in O.Ir. *mebuir* fr. Lat. *memoria*, in this case, however, it may be a question of dissimilation as in Mid.Ir. perf. *mebaid* = O.Ir. *memaid* 'he broke'.

Germanic.

§ 213. Goth. *midjis* OHG. *mitti* 'medius': Skr. *mádhyas*. Goth. *qiman* OHG. *queman* 'to come': Skr. *gámana-m* 'a going', fr. rt. *gem-*. Goth. *hilms* OHG. *helm* 'helmet', Ags. *helm* 'protector, helmet': Skr. *śárman-* n. 'protection'. OHG. *camb* 'toothed tool, comb': Skr. *jambha-s* 'tooth, bit', Gr. *γόμενος* 'plug, bolt, nail', O.Bulg. *zqbŭ* 'tooth'.

Goth. *nahts* OHG. *naht* 'night': Lat. *nox*, Lith. *nakštis*. Goth. *manna* fr. **manu-* OHG. *man* 'man': Skr. *mánu-ṣ* 'man'. Goth. *áins* OHG. *ein* 'one': Lat. *oino-s* *ūnu-s*, prim. f. **oino-s*. Goth. *snáivs* OHG. *snēo* 'snow': Lith. *snėga-s* O.Ir. *snechta* 'snow', rt. *sneigh-*. Goth. *bindan* OHG. *bintan* 'to bind': Skr. *bāndhana-m* 'a binding', rt. *bhendh-*.

OHG. *zanga* Ags. *tonge* O.Icel. *tong* 'tongs', OHG. *zangar* 'biting, sharp': Skr. *dāṣana-m* 'a biting, bite'. Goth. *aggvu-s* OHG. *angi engi* 'narrow': O.Bulg. *azŭkŭ* 'narrow', rt. *aŋgh-*. Goth. *stiggan* 'to push': Lat. *stingere*. Goth. *gaggan* OHG. *gangan* 'to go': Skr. *janaghā-* 'heel-bone'.

Rem. *ṇ* is generally represented in Goth. by *g*, s. § 25; in West Germ. and Norse by *n* as in Lat.

§ 214. Prim. Germ. changes.

-md- (*m* partly going back to Indg. *m*, § 244) became *-nd-*. OHG. *rant* m. O.Icel. *rond* f. 'edge', to rt. *rem-* 'cease, rest', Goth. *rimis* n. 'rest'. Goth. *skandu* OHG. *scanta* 'shame', to Goth. *skaman* (w. verb) OHG. *scamēn* 'to be ashamed'. O.Icel. *sund* n. 'swimming' fr. prim. Germ. **s(u)um-da-* (§ 180 p. 158). Goth. *hund* OHG. *hunt* 'hundred': Lith. *szimta-s*, Indg. **ḱmtó-m*. Whereas *m* remained before *p* down to the literary period. Goth. *ga-qumþi-* 'synagogue', OHG. *cumft cunft* with early excrescent *f*, to Goth. *qiman* OHG. *coman* 'to come'. OHG. *numft nunft* 'a taking', to Goth. *niman* OHG. *neman* 'to take'. OHG. *ramft*,

bye-form of *rant* 'edge', therefore goes back to a **rám-pa-* (§ 529) ¹⁾. For OHG. *mft* from *mþ* see § 529. *m* also remained before *s*, e. g. Goth. *ams* 'shoulder' : Skr. *ása-s*, Indg. **omso-s*.

-ln- (*l* partly goes back to Indg. *l*, § 299) became *-ll-*. OHG. *wella* 'wave' : Lith. *vilni-s* O.Bulg. *vlüna* 'wave'. Goth. *fulls* OHG. inflec. *follēr* 'full' : Lith. *pilna-s* O.Bulg. *plünū* 'full', Indg. **pl-nó-s*.

Further *n*, as the initial sound of chief-accented *n*-suffixes, seems to have been assimilated to the descendants of Indg. root-final explosives. The prim. Germ. gemination may be thus explained. E. g. OHG. *lecchōn* 'to lick', prim. Germ. **likkō-* fr. previous Germ. **ligh-nā-*, cp. Gr. *λχρεύω*, rt. *leigh-*. Cp. Osthoff Paul-Braune's Beitr. VIII 297, Kluge ibid. IX 169. On the relations of sound-shifting *s*. §§ 530. 534. 538. 541, 5.

ṃ disappeared before *χ* (§ 527—529), whereby short vowels became long ²⁾. Goth. OHG. *fahan* 'to seize' fr. **fəṃχana-n* : Lat. *pangō pāx*, Skr. *pāśa-s* 'noose, cord', rt. *pāk-*, with nasal-infix *pañk-* (§ 221). Goth. *pāhta* OHG. *dāhta* 'I thought', pret. of *þaykjan*, *denchen* 'to think' : O.Lat. *tongēre* 'to know'. Goth. *pūhta* OHG. *dūhta* 'appeared', pret. of *þugkjan*, *dunchen* 'to seem, appear', from the same root. Goth. *bi-ūhts* 'accustomed' : Lith. *j-ūnkta-s* 'accustomed' (§ 666, 1). Goth. *þeihan* OHG. *dīhan* 'to thrive' fr. **þiṃχana-n*, older **þeṃχana-n* : Lith. *tenkū* 'I have enough', cp. Ags. pret. pl. *ḍunzon* part. *ḍunzen* and the OS. causat. *thengian* 'to complete'; the *ɪ* of the present in the Goth. and HG. forms was the occasion of their passing into the analogy of verbs like Goth. *steiga* 'I ascend' = Gr. *στείχω* : pret. Goth. *þāih* OHG. *dēh* (cp. § 67 rem. 2).

Rem. This disappearance of the nasal before *χ* took place later than the passing of *χ* into *ʒ* (Verner's law, §§ 530. 541, 4), as is seen by such forms as Ags. *ḍunzon* beside Goth. *þeihan* (s. above), Goth. *juggs* 'young' beside compar. *jūhiza*.

1) Goth. *anda-numti-* 'a receiving, taking up' was a new formation after forms like *fralusti-* 'loss'.

2) It seems to me not to be absolutely necessary to conclude with Sievers Ags. Gramm. p. 15 that the *āχ* which arose from *anχ* must still have had nasalised *ā* down to the period of the separate dialects.

Indg. *-m* became *-n*. Acc. sg. **uulfa-n* 'wolf' : Skr. *ṽfka-m*; **kuēni-n* 'woman' : Skr. *-jāni-m*; **sunu-n* 'son' : Skr. *sūnū-m*; gen. pl. **zebōn* 'donorum' : cp. Av. *vanqm* (*vand-* 'tree'). When protected by a particle (after the change of *-m* to *-n* had taken place) this *n* was preserved in Goth. *pan-a* OHG. *den* Ags. *ðon-e* 'the' : Skr. *tā-m* Gr. *τό-ν*. Where no such protection was at hand, *-n* was dropped in the prim. Germ. period at the same time with the Indg. *-n* after short vowels, whereas it only became reduced after long vowels, and first fully died out in the course of the individual dialects. From **uulfa-n*, **kuēni-n*, **sunu-n* : **uulfa*, **kuēni*, **sunu* = Goth. *vulf*, *qēn*, *sunu*. Cp. prim. Norse (runic inscrip.) *staina* = Goth. *stáin* 'stone', *sunu* = Goth. *sunu*. But fr. **zebōn* gen. pl. and fr. nom. **ḡanōn* 'cock' **tunōn* 'tongue' (with Indg. *-n*, cp. gen. Goth. *hanins tuggōns* and the nom. formation Gr. *αἶών* etc.) : **zebōn*, **ḡanōn*, **tunōn* = Goth. *gibō*, OHG. *hano*, Goth. *tuggō* (hence the nom. Goth. *raþjō* 'account' and Lat. *ratio* are not exactly the same, since *n* had not been dropped in Lat.). With Goth. *tuggō* cp. prim. Norse (runic inscrip.) *Fino* = O.Icel. *Finna*.

§ 215. Gothic and West Germanic changes.

In Goth., *m* in the combination *-mn-*, passed into a spirant, which was now written *f*, now *b*, e. g. *vundu-fn-i* f. 'wound, plague', *vitu-bn-i* n. 'knowledge' with weak form of the suffix *-men-*, the latter to Skr. *vid-mán-* 'wisdom' (cp. the author Morph. Unt. II 201. 209). Cp. O.Icel. *-fn-* from *-mn-*, e. g. *nafn* 'name' *safna* 'to collect'.

Rem. 1. In Goth. *namn-ē* 'nominum' and *namn-ian* 'nominare' the *-mn-* was re-introduced through analogy (after *namō*, *namins* etc.), just as in O.Icel. dat. sg. *gamne* beside regular *gafne* from *gaman*. n. 'joy'.

In the final syllable of nouns with *n-* and *m-* suffixes, if the nasals followed explosives or spirants, there arose in West Germ. through the loss of the short vowel following the nasal (§ 635. 661, 2), *ɳ* and *ɱ*, from which a vowel was then developed. Nom. acc. OHG. *eban* OS. *eban* Ags. *efen* 'even' = Goth. nom. *ibns* acc. *ibn*, prim. Germ. **ebna-z* **ebna(-n)*. OS. *mēthom* Ags. *māðum* 'present, jewel' = Goth. *máipms* *máipm*.

(It is possible that a sonantal nasal was also spoken in Goth., *ibɳs*, *ibɳ*, *máipɳs* *máipɳ*). In OHG., the vowel, thus developed, penetrated from the final into the medial syllable of these nouns and their derivatives, at first after short syllables, and later after long also, e. g. *ebano* adv., *ebani* 'a plain', *ebanōn* 'to level'; such forms were chiefly due to analogy (cp. Sievers Paul-Braune's Beitr. V 90 ff.). Anaptyctic vowels were also often generated from nasals in OHG. under other circumstances, e. g. *wahsamo* beside *wahsmo* m. 'growth' to *wahsan* 'to grow', *brosama* beside *brosma* f. 'crumb', *kinoto* beside *chnodo* 'knot, thong'. An assimilation to the quality of the surrounding vowels may occasionally be observed in the development of OHG. vowels, e. g. *ebono*, *ebonōn*, *ebini* = *ebano*, *ebanōn*, *ebani*.

Rem. 2. Cp. anaptyxis in the case of *ɳ*, § 180, and liquids, § 277.

Nasals, like other consonants (§§ 143. 277. 529. 532. 536. 540), were geminated before *ɪ* in West Germanic. OHG. *frum-mian* *frumman* OS. *frummian* *frummean* 'to further, promote', to OHG. *frum* 'apt, fit' OHG. OS. *fruma* 'advantage'. OHG. *wenn(i)an* OS. *wennian* Ags. *wennan* 'to accustom': Goth. *vanjan* O.Icel. *venja*, to Skr. *van-* 'like, love'.

In OHG. *-m*, which had become final, passed into *-n* in the ninth cent., a repetition of the prim. Germ. change (§ 214). Dat. pl. *tagun*, older *tagum*: Goth. *daga-m* 'diebus'. 1. pl. *geban*, older *gebam*: Goth. *giba-m* 'damus'. 1. sg. *bibēn*, older *bibē-m* 'I tremble at': Skr. *bí-bhē-mi* 'I am in fear'.

Baltic-Slavonic.

§ 216. Lith. *mirtī-s* O.Bulg. *su-mrǫŭ* f. 'death': Skr. *mṛ-ti-ṣ*, Lat. *mors mortis*. Lith. pl. *dúmai* O.Bulg. *dymŭ* 'smoke': Skr. *dhā-má-s*, Lat. *fū-mu-s*. 1. pl. Lith. *vėžame* O.Bulg. *vezemŭ* 'vehimus': Skr. *vāhā-mas*, Lat. *vehi-mus*. Lith. *esmi* O.Bulg. *jesmŭ* 'I am': Skr. *ás-mi*. Lith. *límpu* 'I remain clinging': Skr. *límpāmi*.

Lith. *nūga-s* O.Bulg. *nagŭ* 'naked': Skr. *nagná-s*, Goth. *naqap̃s*. Lith. *añs anà* O.Bulg. *onŭ ona* 'that': Skr. *aná-* 'this'.

Lith. *sē-men-inis* O.Bulg. *sē-men-inŭ* 'belonging to seed': Lat. gen. *sē-min-is*. Lith. *plna-s* O.Bulg. *plünŭ* 'full': Goth. *fulls*, Indg. **pl-no-s* (§§ 302. 303). Pruss. *kirsna-n* acc., O.Bulg. *črīnŭ* 'black': Skr. *kṛṣṇá-*, Indg. **qrsno-s* (§§ 302. 303). Lith. *mentūrė* fem. 'twirling-stick', O.Bulg. *mq̃titi* 'to bring into tumult, confusion': Skr. *mánthami* 'I stir, turn'.

Lith. *slanka slañkiu-s* 'creeper, slow man', O.Bulg. *slakŭ* 'crooked': OHG. *slango* O.Icel. *slange slangi* m. 'snake', rt. *slenq-*. Lith. *unguriŷs* (Pruss. vocab. *angurgis*; the ending of the word is wrongly written) O.Bulg. *qgorištŭ* 'eel': Lat. *anguilla*. Lith. *sniŋga* 'it snows': Lat. *ninguit*.

Rem. *no* is represented by *n* in Baltic.

§ 217. *-m* seems to have become *-n* in prim. Baltic-Slav. Acc. sg. **to-n* 'the' from Indg. **to-m* (Skr. *tá-m*): Lith. dial. *tan tŃn*, generally *tā* (218), Pruss. *s-tan*, O.Bulg. *tŭ*.

That for the Slav. form *tŭ* first of all **tŭn* **ton* is to be presupposed, is shown by *sŭn-*, in *sŭn-ěsti* 'comedere' and other secondary forms of *sŭ* = Pruss. *san* (*san-insle* 'girdle'): Skr. *sám*, Indg. **som*. Prim. Balt.-Slav. final *-n* did not entirely die out after *a* in Slav., e. g. acc. sg. fem. *tq* 'the' = Skr. *tām*, Gr. *τήν*; cp. § 219.

§ 218. Baltic.

Indg. *-mt-* remained (while in other Indg. languages it became *-nt-*). Lith. inf. *vėmti* 'to spit, vomit', supine *vėmtu*, Lett. inf. *wemt*: cp. Skr. part. pf. *vānta-* beside *vamita-*. Lith. *reñti* 'to support': cp. Skr. inf. *rántum*, to *rámati* 'he brings to a standstill, makes fast'. Cp. also the *m* from Indg. **m* (249) in Lith. *szim̃ta-s* Lett. *si'mts* 'hundred': Lat. *centu-m*; Lith. *desziim̃ta-s* Lett. *desmits* Pruss. *dessim̃ts* *dessym̃ts* 'decimus': Gr. *δέκαρο-ς* Goth. *taihunda*, beside Lith. *deviñta-s* Lett. *dewits* Pruss. *newim̃ts* 'nonus', Indg. **neym-to-s*.

Nasal + *s* or *sz*, *š* (= Indg. *k̃*, *g̃* *gh*, § 412). In words like *žq̃si-s* 'goose' (OHG. *gans*, Skr. *hṛṣá-s*), *gręžiũ* 'I turn, bore' inf. *gręsz-ti*, *at-grąža-s* 'return' (O.Icel. *kringr* 'round', Mod.

HG. *kring kringel*, rt. *greñgh-*) a nasal-vowel verging into a more or less distinct *ɲ* is at present heard in a portion of the Lith. dialects, whilst in the greater part the nasal-vowel has entirely died out and a pure long vowel is only spoken (*žasīs*, *grėžiū*). The nasal hook has therefore only an etymological signification in the literature of the latter dialects. No complete consistency, however, exists in the use of it.

Rem. When in those dialects, in which the pronunciation *ā* for *q* etc. is the universal rule, e. g. in that with Godlewa, fut. *pīsiu* (*pīsiu*) and *pīnsiu* ('I shall twist') is spoken side by side of inf. *pīnti* and *pīti* (*pīti*), it is due to a levelling between the form of the fut. stem and that of the inf. etc.: *pīnsiu* is a new formation after *pīnti*, but *pīti* after *pīsiu*. Cp. the Author Lit. Volksl. und Märch. p. 288¹⁾.

Prim. Balt.-Slav. *-n* after vowels (§ 217) has entirely disappeared in one, part of the language, and a pure un-nasalised vowel prevails. The written language, which represents this state and in which the nasal hook has only an etymological value, is also here inconsistent. It has, e. g. acc. sg. *děva*, *anā* *anā*, *szī*, but gen. pl. *děvū* ('deorum') for *děvū*; the latter from **-ūn*, older **-ōm* (cp. Ved. *dēvām*). Elsewhere, as before sibilants, a nasal vowel, ending in a more or less strongly articulated *ɲ*, is spoken, e. g. *tqɲ*, *děvɲ*, or *-n* remained intact: *tan*, *anan*, *szin*. There are dialects in which all three stages (pure vowel, nasal vowel + *ɲ*, vowel + *n*) occur side by side. It is clear that in addition to differences of accentuation and quantity (s. Bezenb. Beitr. X 307 ff.) also various relations of sandhi (position in absolute and conditional finality, various initiality of the following word) brought about the state of fluctuation. Unfortunately so little account is taken of word-combination in the writing down of the forms in question (s. especially Bezenb. Beitr. VII 163 ff.) that it is at present impossible to obtain a knowledge of the historical state of things.

§ 219. Slavonic.

Before all consonants except *ɹ*, nasals became, with the preceding vowel, nasalised vowels in prim. Slavonic (cp. § 281

1) The above is unaffected by Bezenberger's opposite view (Beitr. VII 167).

rem. 3). The *ĭ* and *u*, thus formed, became then further *ī* (O.Bulg. *i*) and *ū* (*y*, § 60). O.Bulg. remained at this stage. Examples:

1. *v-onja* 'vapour, smell' from rt. *an-* 'breathe' (§ 666, 1): Skr. pres. 3. sg. *ániti*. *zemlja* 'earth': Lith. *žėmė*, Lat. *humu-s*, Gr. *χαμαί*; concerning the excrescent *l* s. § 147 p. 132.

2. *ę* = prim. Indg. prim. Slav. *e* + nasal. *světŭ* 'holy': Lith. *szveñta-s*, Av. *spenta-*, cpf. **švento-s*. *zėba* 'dilacero, frigeo': Skr. *jám̐bha-tē* 'snatches at something', causat. *jambháya-ti* 'bruises, pounds'. Cp. § 68. *ę* = Indg. *on* in the acc. pl. *konję* 'equos' fr. **konjens*, older **konjo-ns* (§ 84 p. 80).

ę was at the same time the representative of the Indg. sonantal nasals = prim. Sl. *ṃ, ṣṃ* (§§ 248. 249). *pa-męti* f. 'remembrance': Lith. *at-minti-s* 'memory', Goth. *ga-mundi-* 'remembrance', Skr. *mati-ṣ* 'thought, mind', Lat. *mens*, Indg. **mṇ-ti-s*. *desęti* 'ten': Lith. *dėszimti-s*, Skr. *daśati-ṣ*, Indg. **deṣṇti-s*.

3. *a* = Indg. *o*, *a* (prim. Slav. *o*) + nasal.

beręti 'ferunt': Gr. Dor. *φέρο-ντι*. *zębŭ* 'tooth': Gr. *γόμφο-s* 'bolt'. Cp. § 84.

qęükŭ 'narrow': Gr. *ἄγγω*, Lat. *angus-tu-s*. *qčhati* 'to smell' fr. orig. **an-s-*: Lat. *anima*, *alu-m hālāre* fr. **anslo-* (§ 208), Gr. *ἄνεμο-s*, rt. *an-*. Cp. § 100.

4. *i, y* = previous Balt.-Slav. *i, u* + nasal.

Suffix *-ikŭ* (*-in-ikŭ*) = Lith. *-inka-s* (*-in-inka-s*), e. g. *dvor-inikŭ* 'comes palatii': Lith. *dvārininka-s* 'courtier' 1). *isto*, gen. *istes-e*, 'testiculus', pl. *istes-a* 'renes': Lith. *inksta-s* 'kidney, testiculus', Pruss. *inxcze* 'kidney', Lat. *inguen*. Acc. pl. *gosti* 'guests': Goth. *gasti-ns*. Cp. also *plita* (beside *plinŭta*) 'brick' fr. Gr. *πλίνθος*.

lyko n. 'bast': Lith. *lŭnka-s* Pruss. *lunka-n*. *v-yknę* 'I learn': Lith. *j-ŭnkstu* 'I become accustomed' (§ 666, 1). Acc. pl. *syny* 'sons': Goth. *sunu-ns*.

1) If this suffix belongs to OHG. *-inc* O.Icel. *-ingr*, it is easy to conjecture that it is borrowed from Germ. For Germ. *-inŕga-* beside *-unŕga-* (the author Morph. Unt. II 238, Kluge Nominale Stammbild. 13. 26) rather contains Indg. *-en-* than *-in-*.

y was further the continuation of older *-on-* in the acc. pl. masc. *vlūky* 'lupos' : Goth. *vulfa-ns* Gr. Cret. *νόμο-νς* (§ 84); acc. pl. fem. *raķy* 'manus' : cp. Pruss. *gennans* 'feminas' (§ 615).

-n alone occurred as final in the prim. Slav. period (§ 217), and **-ān*, **-ēn* became *-a*, *-e*; **-ūn* = Indg. **-ōn* (§ 92) became *-y*; **-en* and **-in* (= Indg. *-ni* § 248) became *-e*; **-in* became *-i*; **-un* (= Indg. **-um* and **-om*, § 84 p. 80) became *-ū*. O.Bulg. remained at this stage. Examples:

1. *-a*, *-e*. Acc. sg. f. *ženā* 'wife' : Skr. *āśvām* 'equam', Gr. *χώραν*, Indg. *-ā-m*. 1. sg. *vezā* 'veho' : Lat. *veham*, cpf. **ueghā-m*. Nom. acc. neut. *ime* 'name' fr. **i-mēn*: cp. the long vowel in Goth. *namō* fr. **na-mōn* (§§ 195. 214).

2. *-y*. Nom. *kamy* 'stone' (st. *kamen-*), formed like Gr. *ἄκμων*, OHG. *hano*, Lith. dial. *szuņ* 'dog' (beside *szū*, Skr. *śvā*, § 92 rem.).

3. *-e*. Nom. acc. neutr. *polje* 'field' fr. **-ien*, **-ion*, Indg. **-io-m* (§ 84 p. 80). J. Schmidt Kuhn's Ztschr. XXVII 307 perhaps rightly (doubts however remain, s. W. Schulze ibid. 546) traces the *-e* of the loc. sg. *kamen-e* back to **en* = Pruss. *en* Gr. *ἐν* 'in' (**kamen* loc. like Skr. Ved. *kārman*, Gr. *δομεν*). The *-e* of the acc. sg., e. g. *mater-e* 'matrem', fr. **-in* = Gr. *-α*, Indg. *-n* (§§ 224. 249).

4. *-i*. Acc. *gostī* 'guest' : cp. Skr. *āvi-m*, Gr. *οἶ-ν*.

5. *-ū*. Acc. *synū* 'son' : Skr. *sūnū-m*. Acc. *vlūkū* 'wolf' : Skr. *vṛka-m*, Gr. *λύκο-ν*.

Rem. 1. Acc. sg. *jī'eum* *konjī* 'equum' are accordingly not fr. **iō-n*, *konjō-n*, but fr. **iī-n* (Lith. *jī*), **konjī-n*. S. § 84 rem. 1.

Assimilation took place when nasals of different organs came together. This process was also prim. Slav. *kamēnū* 'made of stone' fr. **kamn-ēnū*, to *kamen-* 'stone'. To the nom. pl. *graždan-e* 'town-inhabitants' (fr. **grādiān-e(s)* § 147 p. 132 f.; from *gradū* 'town', cp. Gr. *οὐρανίων-ες* 'celestial inhabitants') belonged as dat. *graždamū* and as instr. *graždami* (Miklosich Vergl. Gramm. III² 15 f.), fr. **-ān-mū*, **-ān-mi*.

Rem. 2. Cp. the assimilation of *-nm-* to *-m-* in *ime* 'name' (= **iīme*) and *imā* 'I grasp, take' (= **iīmā*, cp. *vūz-īmā*, *sūn-īmā*, § 666, 1), the

former fr. **in-mēn* (cp. O.Ir. *ainm*, Gr. *ὄνομα* etc.), the latter fr. **inm-ā-m* (Goth. *nima*, Gr. *νέμω*, rt. *nem-*) with *in* = Indg. *ṇ-* (§ 248). On account of Pruss. *emn-a-* 'name' and Lith. *imù* = Slav. *imā* we must assume that the assimilation here took place in the prim. Balt.-Slav. period. **ṇ-men-*, **ṇm-ō* (1. sg.) had probably already at this period become **ṇmen-*, **ṇmō*. Cp. Lat. *emō* § 238.

Nasal changes in the prim. Indg. period.

§ 220. J. Schmidt (Kuhn's *Ztschr.* XXVI 337 ff.) assumes that *n*, in the final combination long vowel + nasal + *s*, disappeared in the Indg. prim. language. E. g. Indg. *-ās* in the acc. pl. of *ā*-stems (Skr. *áśvās* 'mares', Goth. *gibōs* 'gifts', Lith. *rankos-nà* 'into the hands') fr. *-āns*, cp. *-o-ns* in the mascul. (Gr. Cret. *νόμο-νς* etc.). Indg. nom. sg. **mēs* 'month' fr. **mēns* (cp. Lat. gen. pl. *mēns-um* etc.), hence the Skr. form *mās*. The ending of the nom. sg. masc. part. pf. act. *-ṇōs* (Gr. *εἰδώς*, Av. *vidvā* 'knowing', § 649, 7) fr. *-ṇōns* (cp. Skr. acc. sg. masc. *vidvās-am* etc.).

This hypothesis seems to me worth mentioning in this place as being a possibility which ought to be noticed. At present however it requires a still firmer foundation. We shall come to speak below of some of the forms and form-categories which Schmidt has brought forward in support of his theory.

§ 221. In all Indg. languages we meet with forms having a nasal in the root-syllable, when this ends in an explosive or a spirant, where we have good reason to suppose that the nasal once stood behind the root-syllable as nasal suffix. Forms also often occur with nasal suffix beside those with nasal infix. It is probably here a question of a sound-change which dates back to the Indg. prim. period. But it still remains to be established on the one hand, by what law the nasal-anticipation (or the affection preparing the way for it) at that time now appeared, now not; and on the other hand it must be determined whether the same process or similar processes have not also happened at a later time in the individual languages, e. g. in Italic (cp. Thurneysen Kuhn's *Ztschr.* XXVI 301 ff.) and thus cause the whole mass of examples to have to be estimated from various points of view. In any case it is no mere accident that the

prim. Indg. change of the voiceless explosives into the voiced at the end of roots (§ 467, 7), so frequently appears in connection with present formations having a nasal infix (Osthoff Morph. Unt. IV 328, Zur Gesch. d. Perf. 548), and that the syllable, which had absorbed the vowel into itself, was generally unaccented (the strong forms of the Skr. seventh present-class as *chinád-mi* do not come into account here).

The nasal anticipation appears most frequently in the present tense, especially in the formation with suffix *-é- -ó-* (Skr. sixth class), with which the Skr. seventh present-class is closely related (s. the author's article in Morph. Unt. III 148 ff.). Skr. *limpāmi*, Lith. *limpù* : O.Bulg. *pri-ŭ(p)na*, fr. rt. *leip-* 'smear, stick'. Skr. *chindāmi chinādmi*, Lat. *scindō*, OHG. *scintan* (cp. also Av. causat. *scindayeiti*, Gr. *σχινδαλμός-ς*), from rt. *sqhajt-sqhaid-* 'split, tear'. Gr. *πυρθάνομαι*, Lith. *pa-bundù* : O.Bulg. *vüz-būna* fr. **būdna*, fr. rt. *bheydh-* 'watch, mark'. Skr. *yunjāte yunājmi*, Lat. *jungō*, Lith. *jūngiu* : Gr. *ζεύγνυμι*, from rt. *jeug-* 'harness, yoke'. Lat. *pangō*, OHG. OS. inf. *fahan* (fr. prim. Germ. **faoḡana-n*, § 214) part. *fangan* : Gr. *πήγνυμι*, from rt. *pāk- pāg-* 'bind, make fast'. Lat. *pandō* : Gr. *πίτνυμι* 'I spread out'. Gr. *λυγγάνομαι* 'I have the hiccup' (*λύγξ* 'hiccup') : Mid. HG. *slucken* fr. prim. Germanic **slugnōna-n* (§ 534). Lith. *smunkù* 'I slide, glide' : Mid.HG. *smücken* 'to dress, adorn' O.Icel. *smokkr* 'under dress' from prim. Germ. **smuz-n-* (§ 530).

Noun formations. Lat. *fundu-s* 'ground, bottom', O.Ir. *bond bonn* 'solea', Gr. *πύρδαξ* 'bottom' : Skr. *budhná-s* 'bottom'. Lat. *unda*, Pruss. *unda-* m. 'water', Lett. *údēns* 'water' fr. **undens*, Lith. *vandũ -eñs* 'water' (the Lett. and the Lith. words seem to be due to a contamination of the stems **unda-* and **uaden-*), to these Skr. *unādmi undāmi* 'I wet, bathe' : Skr. *udán- udn-* 'water, wave', Gr. *ύδαρ-* from **udn-t-* (§ 233) *Ἀλοσ-ύδνη* (?), Goth. *vatin-*, dat. pl. *vatin-a-m*, 'water'¹). Here come perhaps also Lat. *mēns-*

1) OHG. *undea* 'wave' can only be compared on the supposition that the root originally ended in *t*, so that the *d* in Lat. *unda* Skr. *udán-* etc. would stand on the same level with the *g* in *pangō* *πίγνυμι* (beside Lat. *pac-*, Skr. *paś-*). See above.

‘month’, Gr. Lesb. *μηνν-*, O.Ir. *mīs-* fr. **mēns-* (§ 212) : O.Bulg. *měse-čŕ*, cp. Umbr. *menzne* ‘mense’, Mars. *mesene* ‘mense’, Skr. *mās-* *māsa-*.

Rem. Further examples in J. Schmidt’s *Voc.* I 29 ff. (where however Skr. *mānthāmi* and similar forms are to be omitted). The author *Morph. Unt.* III 148 ff., *Osthoff ibid.* IV 325 ff., *Paul-Braune’s Beitr.* VIII 268 ff.

B. THE NASALS AS SONANTS¹⁾.

§ 222. The Indg. parent language had all four nasals both in a consonantal and sonantal function. *ṇ* and *ṃ* only occurred before the corresponding explosives.

We cannot ascertain whether the *-ṇ-*, which frequently forms the close of a nominal *n*-stem, was or was not already in the Indg. prim. period assimilated to the organ of a following non-dental explosive. E. g. for Skr. *yuvaśú-s*, Lat. *juvencu-s*, Cymr. *ieuanc* O.Ir. *ōac* *ōc* (the Keltic word has been transformed in the first syllable perhaps after the form of the comparative, see § 137), Goth. *juggs* (*jūggs*?) are we to regard the primitive form as **iunṇ-kó-s* or **iunṃ-kó-s* (or with initial *j-*, § 133)? Skr. instr. pl. *vṛṣa-bhiṣ* (stem *vṛṣan-* ‘male’) fr. **uṛṣṇ- bhis* or **uṛṣṃ-bhis*?

The sonantal nasals occurred both as short and long, but mostly short. When long, they corresponded morphologically to *ī* and *ū* see § 312.

1. The short sonantal nasals.

§ 223. The mode of treating the short *ṇ*, *ṃ*, *ṇ̄*, *ṃ̄* in the separate languages renders it advisable to divide them into four categories.

1) Concerning the sonantal nasals and liquids see the author’s essay in *Curtius’ Stud.* IX 285 ff. 385, *Kuhn’s Ztschr.* XXIII 587 ff. XXIV 255 ff., *Morph. Unt.* II 151 ff.; J. Schmidt *Jen. Literat.-Zeit.* 1877 Art. 691, *Kuhn’s Ztschr.* XXIV 321 f.; *Osthoff Kuhn’s Ztschr.* XXIV 415 ff., *Morph. Unt.* I 98 ff. II 14 ff. IV p. IV ff.; *Bezzenger in his Beitr.* III 133 ff.; *Fick ibid.* III 157 ff., IV 167 ff.; *de Saussure Mémoire sur le système primitif etc.* 6 ff. 18 ff. 239 ff.; *G. Meyer Griech. Gramm.* p. 9 ff.; *Paul in Paul-Braune’s Beitr.* VI 108 ff. 408 ff.; *Kögel ibid.* VIII 102 ff.; *Kluge Beitr. zur Gesch. d. germ. Conjug.* 17 ff.; *J. v. Fierlinger Kuhn’s Ztschr.* XXVII 437 ff.; *Zimmer ibid.* 450.

1. Unaccented¹⁾ before explosives, spirants, nasals and liquids, and finally, e. g. **tṇtō-s* part. pass. from rt. *ten-* 'stretch, extend': Skr. *tatā-s*; **sēmṇ* nom. acc. sg. of the neut. stem **sē-men-* 'a throw, seed': Lat. *sēmen*.

2. *ṇ*, *ṇ* unaccented before *i*, e. g. **mṇiō* 1. sg. pres. from rt. *men-* 'think': Lith. *miniū*. Here are probably also to be placed the combinations *ṇu*, *ṇu*, s. § 225.

3. With principal accent before consonants, e. g. **s-ṇti* 3. pl. of **és-mi* 'I am': Skr. *s-ánti*.

4. *ṇ*, *ṇ* before sonants, in which case *m*, *n* were spoken as glides, e. g. **tṇn-ú-* (rt. *ten-*) 'stretched, thin': Skr. *tan-ú-*. The glide consonant corresponded to *u*, *i* in such Indg combinations as *uṇa*, *iṇa*, e. g. **duṇō* = Skr. Ved. *duvá* O.Bulg. *dūva*. S. § 117 p. 110.

The following is an abstract of the usual representation of *ṇ* in the Indg. separate developments from these four points of view (*ṇ* *ṇ* *ṇ* were similarly treated):

	Ar.	Armen.	Gr.	Ital.	pr. Ir.	Germ.	Balt.	Slav.
1.	<i>a</i>	<i>an</i>	<i>a</i>	<i>en</i>	<i>*en</i>	<i>un</i>	<i>in</i>	<i>ǣ</i>
2.	<i>an</i>	<i>an?</i>	<i>av</i>	<i>en</i>	<i>*en?</i>	<i>un</i>	<i>in</i>	<i>ǫ</i>
3.	<i>an</i>	<i>an?</i>	<i>av</i>	<i>en</i>	<i>*en</i>	<i>un</i>	<i>in</i>	<i>ǣ</i>
4.	<i>an</i>	<i>an</i>	<i>av</i>	<i>en</i>	<i>*an</i>	<i>un</i>	<i>in</i>	<i>ǫ</i>

Primitive Indg. period.

§ 224. 1. Unaccented before explosives, spirants, nasals and liquids, and finally.

**kṇtō-m* 'hundred': Skr. *śatā-m*, Gr. *ἑ-κατό-ν*, Lat. *centu-m*, O.Ir. *cēt*, Goth. *hund*, Lith. *szimta-s*. **gṇtō-* 'gone', **gṇtī-* 'a going' fr. rt. *gem-*: Skr. *gatā-s gāti-ṣ*, Gr. *βαρό-ς βάσις*, Lat. *in-ventu-s in-ventiō*, Goth. *ga-gumþi-*. **sṇi-* weak stem of **sem-*

1) Here and in the following §§ the prim. Indg. accentuation is always meant, from which the individual languages deviated in many instances. See § 669.

'unus', as prefix 'with', together': Skr. *sa-* (*sa-kṛt* 'once'), Gr. *á-* (*ἀπλόος* 'simple'), Lat. *sim-* (*sim-plex*). **dékḥi* 'ten': Skr. *dáśa*, Lat. *decem*, O.Ir. *deich n-*; Gr. *δέκα* also here or fr. **δεκατ* (§ 652, 5) = Goth. *táihun*. Suffix of the acc. sg. *-η*: Gr. *-α*, Lat. *-em*, Goth. *-u*, Lith. *-i*, O.Bulg. *-e*.

**mḥ-tó-* part. pass. fr. rt. *men-* 'think': Skr. *matá-*, Gr. *αὐτόματος*, Lat. *com-mentu-s*, O.Ir. *dér-met* (n. 'a forgetting'), Goth. *munda-*, Lith. *miñta-s* O.Bulg. *meṭū*. **me-mḥ-* anteconsonantal weak pf. st. of the same rt.: Gr. *μέμα-μεν μεμάτω*, Lat. *memen-tō*, Goth. 1. pl. *mun-um* (*-um* as in *vit-um*: Skr. *vidmá* Gr. Hom. *ἴδμεν* 'we know'); cp. Skr. mid. *mamn-é*. Pres. st. **tḥ-néu-* **tḥ-nu-* from rt. *ten-* 'extend, stretch': 3. sg. mid. Skr. *ta-nu-tē*, Gr. *τά-νν-ται*. *-mḥ-* anteconsonantal weak form of the nominal suffix *-men-*: Skr. *śró-ma-ta-* n. '(the act of) hearing' (= OHG. *hlīumunt* 'renown'), Gr. *σπέρμα-τα* 'germs', Lat. *cōgnō-men-tu-m*, Goth. *snīu-mun-dō* adv. 'in haste'. **pṭḥ-rós* 'fat' (cp. Skr. *pīvan-*, Gr. *πίων*): Skr. *pīvará-s*, Gr. *πιαρός*. *-ḥs* postconsonantal suffix of the acc. pl.: Skr. *-as*, Gr. *-ας*, Lat. *-ēs* fr. **-ens* (§§ 208. 619), Goth. *-uns*. *-ḥtá-i*, *-ḥtó* endings of the 3. pl. mid.: Skr. *-atē -ata*, Gr. *-αται -ατο*. *-mḥ* in the nom. acc. sg. neut. of *-men-* stems: Skr. *ná-ma* Gr. *ὄνομα* Lat. *nō-men* O.Ir. *ain-m n-* 'name'.

Rt. form *dḥk-* 'bite': Skr. *dáśati* (for **daśāti* like *gáchati* for **gachāti*, § 672), *δάκνω* *ἔδακον*; cp. Skr. *dáśa-s* 'bite', OHG. *zangar* 'biting, sharp', *zanga* 'tongs' (*δηξομαί δηγγμα* etc. were later new formations after forms without nasals in the roots).

**lḥghú-* **lḥghró-* 'quick, small': Skr. *laghú-ś*, Gr. *ἐλαχύν-ς* *ἐλαφρό-ς*, OHG. *lungar*.

§ 225. 2. *η ν* unaccented before *i*. **gm-ió* 'I go' from rt. *gem-*: Gr. *βαίνω* from **βανχω* **βαμχω* (§§ 204. 639), Lat. *veniō* (§ 208). Pres. st. **mḥ-ié-* rt. *men-* 'think': Skr. *mán-ya-tē*, Gr. *μαίνεται* (on the meaning see Curtius Grundz.⁵ 103. 312), Lith. *miniū* O.Bulg. *mīnjā*. Pres. st. **ghḥ-i'-* from rt. *ghen-* 'hew': Skr. *han-yá-tē* pass. (for regular **ghan-yá-tē*, § 454 rem.), O.Bulg. *žīn-jā* 'I cut off, reap'. Formation of the present from noun stems in *-en-* *-men-*, Indg. ending of 1. sg.

-*η-ῖό* : Skr. *ukṣaṇ-yá-mi* to *ukṣán-* 'bull, ox', *brahmaṇ-yá-mi* to *bráhmaṇ-* n. 'prayer', Gr. *τεταίνω* to *τέκτων* 'carpenter', *σπερμαίνω* to *σπέρμα* 'seed, germ', Goth. *glit-mun-ja* to **glitmin-* 'splendour'.

It is probable that the treatment of *ηυ, υυ* in Ar. Gr. and Slav. was analogous to that of *ηι, υι*. Skr. Ved. *jaganvān* Indg. **ge-gṇ-úds* and *jaghanvān* Indg. **ghe-ghṇ-úds*, part. pf. act. from the roots *gem-* 'go' and *ghen-* 'hew' (cp. § 199 rem.). Skr. *tanv-ī* fem. to *tanú-ṣ* 'stretched' fr. **tṇ-υ-ī*, cp. OHG. *dunni* 'thin' fr. **ḡun-υ-ia-*. Gr. part. *βεβα-(F)ώς, γεγα-(F)ώς* were formed anew after forms with *βα-, γα-*. O.Bulg. part. pf. *pīnū* (*πε-τι* 'to hang, strain') may have arisen fr. **pīn-vū* (cp. *da-vū* from *da-ti* 'to give'): cp. *mīni* 'minor' to Goth. *minniza* fr. **mi-nṣ-iz-ō* (§ 184 p. 161). Cp. the author Morph. Unt. II 211 f. 214, Osthoff Zur Gesch. d. Perf. 404. 436.

§ 226. 3. Accented before consonants. Personal ending of 3. pl. *-ῆτι, -ῆτ*, e. g. pres. indic. **s-ῆτι*, opt. **sῖ-ῆτ* **sῖῖ-ῆτ*, imperf. **é s-ῆτ* from rt. *es-* 'be'. Skr. *s-ánti* 'are' *ás-an* 'were'. Gr. Ion. *ἔασι* 'are' fr. **éσ-αντι* (§ 205), El. *ἔαν* 'sint' fr. **éσ-κ-αν*¹⁾ Bœot. *ἐλαν* 'were' (*εἰ* fr. *η*, § 72). Umbr. *s-ent* 'sunt', O.Lat. *s-i-ent* 'sint'. O.Ir. *it* 'sunt', s. § 243, 3. O.Icel. *eru* 'are' prim. Germ. **iz-unfi*, O.Icel. *vissu* OHG. *wissun* 'they knew' with *-un* = Gr. *-αν*, Indg. *-ῆτ*. O.Bulg. *jad-ῥῖ* 'they eat': cp. Skr. *ad-ánti*; s-aorist *base* from *bodā* 'I sting': cp. Gr. *ἐδειξ-αν*.

§ 227. 4. *ηm, υn* (*m, n* glides) before sonants.

σηm-ό 'any one' (rt. *sem-*) : Skr. *sama-*, Gr. *ἀμό-*, Goth. *suma-*; by the side of this cp. Indg. **sm-* in Gr. *μ-ῶνυς* 'having one claw', fem. *μ-ία* 'una' (§ 563, 6). **gṇm-ό* present form from rt. *gem-* 'go' : Skr. ved. *gam-á-mi*, OHG. *koman* Ags. *cuman* O.Icel. *koma*; Skr. *gamāmi* : Av. *ā g'm-a-p* = *huv-á-mi* : *á-hv-a-t* etc.

**tṇn-ύ-* 'stretched, thin' : Skr. *tan-ú-ṣ*, Gr. *ταν-ύ-γλωσσο-ς*, Lat. *ten-u-i-s*, O.Ir. *tan-a*. Corresponding to the double suffix form *-ῖο-* and *-ῖῖο-* (§ 120), *-ρο-* and *-ῥρο-* (§ 287), there existed a

1) The *α* in El. *ἔαν* can, of course, by § 64 also regularly represent an older *ε*. In that case the form would not belong here as a new formation.

-*ṇno*- *-no*- beside. Hence e. g. Skr. Ved. *yaj-aná-s* beside *yaj-ná-s* 'veneration of the gods', Gr. *στειγ-ανό-ς* beside *στειγ-νό-ς* 'covering', *ἐδ-ανό-ν* 'food' beside Skr. *ánna-m* 'food' fr. **ad-na-m*. Ved. *gandá-* Bæot. *βανᾶ* O.Icel. *kona* = Indg. **gṇn-á-*, beside Ved. *gná-* Gr. **μνᾶ-* fr. **βνᾶ-* (in *μνᾶομαι* 'I seek a wife for myself', § 492) O.Ir. *mnā* (gen. sg.) = Indg. **gn-á-* 'wife'; cp. Gr. *βιό-ς* 'bow' Lith. *gijà* 'thread' beside Skr. *jyá-* 'bow-string'. Pres. Arm. *lk-anem* 'I leave' Gr. *λιμπ-άνω* beside Gr. *δάx-νω* etc. (Osthoff Zur Gesch. d. Perf. 407). **ṇn*- 'un-': Skr. *an-udrá-s* Gr. *ἄν-υδρο-ς* 'waterless', beside **ṇ-* before explosives etc., e. g. Skr. *a-pád-* Gr. *ἄ-πovς* 'footless'; in the other languages we have the same form in both cases, Arm. *an-*, Lat. *in-*, Goth. *un-*.

On the prim. Indg. interchange between *ṇm*, *ṇn* and *m*, *n* after consonants cp. §§ 120. 153.

Aryan.

§ 228. 1. Skr. *yáchati* Av. *yasaiti* 3. sg. pres., Skr. *yatá-* Av. *yata-* part. pass from Ar. *yam*- 'to restrain, curb', prim. f. **jṇ-ské-ti*, **jṇ-tó-*. Skr. *gahí* Av. (Gāp.) *gaidī* 2. sg. imper. form rt. *gem*- 'go', prim. f. **gṇ-dhí*. Skr. *śatá-m* Av. *sate-m* 'hundred': Lith. *sziūta-s*, Indg. **kṇtó-m*. Skr. *stabh-* fr. **stṇbh-* in *stabh-ná-mi* 1. sg. pres., *tastabh-úr* 3. pl. pf. (3. sg. *tastámbha*) from rt. *stembh-* (prim. Ar. *sthambh-*?) 'strengthen, prop up'.

Skr. *baddhá-* Av. O. Pers. *basta-* 'bound', Indg. **bhṇdh* + *tó-* from rt. *bhendh-* 'bind'; so also *bhṇdh-* in Skr. *badhnāti* 'he binds' *badhyítē* 'he is bound' and others. Skr. *śastá-* Av. *sasta-* 'spoken, valued', prim. f. **kṇs-tó-*: Lat. *cēnsu-s* a new formation for **censtu-s*. Skr. *hatá-* Av. *jata-* 'struck' (regarding the initial s. § 454 rem.): Gr. *φαρό-ς*, Indg. **ghṇ-tó-*, rt. *ghen-* 'hew, strike, kill'. Skr. *ta-nó-mi* Av. *ta-nao-mi* 'I stretch out': Gr. *τά-νν-ται*, rt. *ten-* 'stretch out, extend'. Skr. Av. *-ma-*, *-va-* as anteconsonantal weak form of the Indg. suffixes *-men-*, *-ṇen-*: loc. pl. Skr. *dhāma-su*, dat. pl. Skr. *dhāma-bhyas* Av. *dāma-byō* (Skr. *dhaman*- 'effect, law etc.' Av. *dā-man-* *daq-man-* 'creature'): cp. Gr. *ἀνα-θήμα-σι*; Skr. *párvata-s* 'range of mountains' Av. *paurvata-*

f. 'mountain', to Skr. *pārvaṇ-* n. 'node, knot': Gr. *πέλαρα* Lesb. *πέρατα*, Indg. **per-up-to-*. Skr. *s-at-* Av. *h-at-* weak st. form of the part. of *ásmi ahmi* 'I am', e. g. in the fem. *satī*, *haiti*: cp. Gr. Dor. *ἔασα*, Indg. **s-ṇt-ī*. Skr. Av. *-ma* = **-mṇ* in the nom. acc. sg. of *-men-*stems: Skr. *dhā-ma*, Av. *dā-ma dām-a*: cp. Gr. *ἀνά-θη-μα*, Lat. *nō-men*.

Skr. *aśnōti* Av. *aśnaoiti* (§ 398) 'he reaches', prim. f. **ṇk-nēu-ti*: cp. Skr. perf. *anāśa*, Gr. *ἐνεγχεῖν*. Skr. *bahú-ṣ* 'dense, much' fr. **bhṇgh-ú-s*: cp. superl. *bāhiṣṭha-* and Av. *baṇzah-* n. 'greatness, strength'.

Skr. Av. *-ac-* 'bent in a certain direction, turned', e. g. in Skr. loc. pl. *praty-ák-ṣu* instr. pl. *-ág-bhiṣ*, fr. **ṇq-*, weak st. form to Skr. *-añc-* Av. *-anc-*: Gr. *ποδ-αν-ό-ς*, Lat. *prop-inqu-o-s* (cp. Osthoff Morph. Unt. IV 249 ff.).

Concerning the qualitative changes of *a* in Av. see § 94.

§ 229. 2. Skr. *gamyāt* Av. *jamyāp* O.Pers. *jamīyā* 3. sg. opt. from rt. *gem-* 'go', prim. f. **gm-īē-t¹*); Sievers (Paul-Braune's Beitr. VIII 81 ff.) places here Ags. opt. *cyme* pl. *cymen* = Goth. **kumjáu* pl. **kumeina*. Skr. *mānyatē* Av. *manyetē* 'he thinks', O.Pers. 2. sg. conj. pres. act. *manīyāhy*: Lith. *miniù*, Indg. pres. st. **mṇ-īē-*; corresponding to Skr. *manyú-ṣ* 'courage, zeal, anger' Av. *mainyu-ṣ* 'spirit', from rt. *men-*. Skr. *hanyatē* Av. *janyetē* 'he is struck': O.Bulg. *žn-jā* 'I cut off, reap'; Skr. *hanyāt* Av. *janyāp* 3. sg. opt. 'he may strike', from rt. *ghen-* 'strike'. Denominative verbs: 3. sg. Skr. *udan-yá-ti* 'streams' *brahmaṇ-yá-ti* 'prays', Av. *vyāzmaṇ-yē-iti* 'deliberates'.

Rem. On the O.Pers. forms cp. § 125 p. 116.

Part. pf. Skr. *va-van-vān* Av. *va-van-vā* from Ar. *van-* 'obtain': cp. the weak st. form Skr. *vavṇ-úṣ-* Av. *vaon-uṣ-*. Skr. 1. du. *gánvas* (for **ganvās*, accented after the analogy of the sg.) from *gam-* 'go': cp. 2. pl. *gathá*. Skr. *udan-vánt-* 'rich in water' *ātman-vánt-* 'animated'.

Concerning the qualitative changes of *a* in Av. see § 94.

1) Skr. *gam-yāt* to *gm-iyá* (1. sg. mid.) as *jagan-vān* to *jagm-úṣi* (part. pf. act. masc. and fem.). On Iran. initial *j-* cp. § 451 rem.

§ 230. 3. Skr. *s-ánti* Av. *h-enti* O.Pers. *h-atiiy* (read *hanti*, § 197 rem.) 'they are', Indg. **s-ṛ̥ti*; with secondary ending Skr. *ās-an s-án* Av. *h-en* O.Pers. *ah-a* (read *ah-an*, § 197 rem.). Skr. *y-ánti* Av. *y-einti* 'they go', Indg. **ṛ̥-ṇti*: cp. Gr. *ἵασι*; with secondary ending Skr. *dy-an* O.Pers. *ay-a* (r. *āy-an*). Skr. *sī-mánta-* 'boundary, parting': Gr. *ἰ-μᾶνρ-* 'thong', Indg. **sī-mṛ̥-to-*, to Skr. *sī-mán-* Gr. *ἰ-μῶνρ-ιά*, rt. *sai-* 'limit, bind'.

On Av. *e* from *a* see § 94.

§ 231. 4. *saptam-á-s* 'seventh': Lat. *septimu-s*, Indg. **septṇm-ó-s*, to which probably also belong O.Ir. *sechtmad* Mid. Cymr. *seithuet* (§ 634); but O.Bulg. *sedmy-jǎ* Pruss. *septma-s* Lith. *sėkma-s* fr. **septmó-s*. Skr. *vanāti* 'he gains, loves' *sanāti* 'he attains' fr. **ṇṇ-é-ti* **syn-é-ti* (Av. *vanaiti hanaiti* either identical with these Skr. forms or like Skr. *vānati sánati* after class I): Goth. *un-vunands* 'not rejoicing'. Instr. sg. Skr. *bráhman-a* (*bráhman-* n. 'prayer') Av. *bar'sman-a* (*bar'sman-* m. 'sacrificial rod') fr. prim. Ar. **mṇn-a*, with these cp. Skr. *nāmn-a* (*nāman-* n. 'name'). Antesonantal Skr. Av. O.Pers. *an-* 'un-': Gr. *ἀν-*, Indg. **ṇn-*.

ghan-á- 'killing' beside *-ghn-á-* (*go-ghná-* 'ox-killing') is similar to *gir-a-* beside *-gr-á-* 'swallowing, devouring' (§ 290).

On the qualitative changes of the *a* in Av. s. § 94.

Rem. The Ar. ending of 1. sg. *-am* e. g. in Skr. *ás-am* 'I was' (cp. Gr. *ἦα ἦ = *ēs-ṇ*) and that of the acc. sg. e. g. in Skr. *pād-am* 'foot' (cp. Gr. *πόδ-α = *pod-ṇ*) point to *-ṇm*. Three explanations are possible. 1. There existed in prim. Indg. beside *-m* and *-ṇ* a form *-ṇm* (and *-ṇ*) after the manner of the phenomena discussed in §§ 312. 313. In that case Cypr. *-av* in *ἀ(ν)δρα(ν)τ-av* (Att. *ἀνδρῶνρ-α*) etc. could be directly connected with the Ar. form. 2. *-ṇ* became *-ṇm*, by a special Ar. development, when the following word began with a sonant, i. e. generated an *m* as glide, under the same conditions as *ṛ̥* and *ʀ̥* often made their appearance after *-i* and *-u* in various languages. 3. *-ṇ* became *-a* in prim. Ar. (cp. Skr. *dāśa*) and this became transformed to *-am* after the analogy of forms like Skr. *ābhara-m*, *dāśa-m*. The second possibility seems to deserve the preference, and the first type in consideration of *ābharam* and *dāśam* may have been generalised through the side by side existence of *āsam a-* and **āsa t-*, *pādām a-* and **pāda t-* (cp. J. Schmidt Kuhn's Ztschr. XXVII 282 f.). Cp. *sthātúr* § 285.

Armenian.

§ 232. *Ḳsan* 'twenty' according to Hübschmann fr. **gisan* (concerning *g-* § 162, and *-s-* § 408): Skr. *viśati-*, Gr. Dor. Bæot. *ῥίκατι*, Lat. *vīginti*, Indg. **uīkṣnti-* or **uīkṣnti-* (first syllable uncertain). *tasn* 'ten' probably fr. Indg. **deḱnt*: Goth. *taihun* (cp. § 651, 2). *inn* 'nine', pl. *inun-Ḳ* or *innun-Ḳ*: connected most closely with Gr. **ἐνφα* (*ἐννα-*, *εἴνα-*, *ἐνα-*, § 166), beside Skr. *náva* O.Ir. *nōi n-* Indg. **nény*. *anun* 'name' fr. **anyan* **an-man* (§ 202): Skr. *nā-ma*, Gr. *ὄνομα*, Lat. *nō-men*, O.Ir. *ainm n-*, Indg. *-mp*. *an-* 'un-' = Indg. **y-* and **yn-* (Skr. *a-* *an-*, Gr. *ἀ-* *αν-*, Lat. *in-*, Goth. *un-*), e. g. *an-ban* 'carens ratione et verbo': cp. Gr. *ἄ-φωρος*; *an-anun* 'nameless': cp. Gr. *ἀν-ώνυμος*. *kan-ai-* in pl. *kanai-Ḳ* 'women': Bæot. *πανᾶ* O.Icel. *kona* 'woman', prim. f. **gyn-a-*. Present formative suffix *-ane-*, e. g. *lḲ-ane-m* 'I leave' *gt-ane-m* 'I find': Gr. *-ανω*, *λιμπάνω*, prim. f. *-yne-* *-yno-*¹⁾: by the side of this cp. *-ne-*, e. g. *aṛ-ne-m* 'I make', like Gr. *δάκνω*. *amarṇ*, gen. *amar-an*, 'summer' (cp. also *amar-ayin* 'aestivus' *amar-aini* 'messis'): OHG. O.Icel. *sumar* 'summer'.

In the forms *tasn*, *inn*, *anun* the *a* in the final syllable *-an* had disappeared by the law of finals (§ 651, 1).

Greek.

§ 233. 1. *βάσχω* 'I go': Skr. *gáchami* 'I go', Indg. **gṃ-skō*, from rt. *gem-*. *ἐρατό-ς* 'lovely': Skr. *ratá-s* 'rejoicing, loved', Indg. **rṃ-tó-s*, rt. *rem-* (Skr. *rám-a-tē*). *-a*, ending of the 1. sg. in *ἦ-α* 'I was', *ἔχ(ι)-α* 'poured out', *ἔδεικ-σ-α* 'showed', *ᾔδει-α* 'knew' etc., Indg. *-ṃ*.

ἔχασον from *χεῖνδ-* 'seize' (fut. *χέισομαι*, § 205): Lat. *pre-hend-ō*. *ἐπαθον πεπαθυῖα* from *πενθ-* 'suffer', *πένθος*. *ἄ-νῦμι ἄ-νύω ἄ-νύω* 'I come to the goal': Skr. *sa-nó-mi*, Indg. **sy-néy-mi*, rt. *sen-*²⁾.

1) Only traces found in Ar., as in Skr. Ved. *iṣ-ana-t*, Av. *peṣ-anaiti mer^{nc}-ainiš*. See the accident, and Bartholomae Ar. Forsch. II 94 f.

2) For a conjecture concerning the strange spiritus lenis in *ἄνῦμι ἄνύω* see Osthoff Zur Gesch. d. Perf. 479 f.

τα- 'stretch, span' in τά-νν-ται τέ-τα-ται τα-τό-ς etc.: Skr. *ta-*, *ta-nu-tē*, Lat. *ten-*, *ten-tu-s*, rt. *ten-*. φα- 'kill' in πέ-φα-ται φα-τό-ς, Indg. *ghy-: Skr. *ha-tá-s* 'struck'. γέ-γα-μεν 1. pl. pf. to γεν- 'gignere', γέν-ος. ἔ-κτα-μεν, ἔ-κτα-το = Skr. *á-kṣa-ta*, aor. to κτεν- Skr. *kṣān-* 'kill'. Lesb. ἄμμες Att. ἡμεῖς 'we', prim. Gr. *ἄ-σμε- (§ 565): Skr. *a-sma-* (dat. *asmá-bhyam* 'nobis'), Goth. *un-s*, Indg. *y-sme-. -α-, -μα-, weak form of the nominal suffixes -en-, -men-: φρα-σί, to φρεν- 'midriff, mind'; ἰδ-α-τ-, to Skr. *ud-án-* *ud-n-* 'water'; ονό-μα-σι: Skr. *nā-ma-su*, to *nā-man-nā-mn-* 'name'; ονό-ματα like Lat. *cōgnō-menta*. Suffix of the acc. pl. -ας: Skr. -as, Lat. -ēs (fr. *-ens, § 208) etc., Indg. -ys, e. g. νῆας 'ships': Skr. *nāv-as* Lat. *nāv-ēs*; ὀφρύας 'eye-brows': Skr. *bhrūv-as*. Ending of the 3. pl. mid. -αται -ατο: Skr. -atē, -ata, Indg. -yτάι, -yτό: ἦαται, ἦατο 'they sit, sat': Skr. *āsātē*, *āsata*; perf. κεκλιάται τετράφαται, opt. γεινοίαιτο etc. ἐν-νέ(f)α 'nine' (orig. 'nine in all', ἐν- 'in'): Skr. *nāva*, Arm. *inn* (§ 232), O.Ir. *nōi n-* (Lat. *novem* after the analogy of *septem*, *decem*), cp. § 152.

ἔλαχον from λεγχ-, cp. pf. λέλογχα.

Rem. o in εἴκοσι beside ἑξήκати 'twenty' etc. does not really represent Indg. sonant nasal. See the author's Griech. Gramm. p. 68 f.

§ 234. 2. βαίνω 'I go': Lat. *veniō*, Indg. *gm-χδ, § 204. So also καίνω 'I kill', prim. f. *kḡm-χδ, to καμ-ό-ντες 'the dead': Skr. *śamayāmi* 'I put to death, destroy'; ν crept into ἔκανον, κέκονα from καίνω. Lesb. κταίνω 'I kill' fr. *κτῖ-νω, rt. κτεν-. μαίνεται: Skr. *mānyatē*, Lith. *miniū*, rt. *men-* (s. § 225). Analogously τιταίνω 'I stretch out', τεκταίνω 'I build', σπερμαίνω 'I fructify' (cp. Goth. *glitmunja* 'I shine') etc. τέκταινα fem. to τέκτων 'carpenter', gen. sg. τεκταίνης like Goth. *lauhmunjōs* (nom. *lauhmun-i* 'lightning'); cp. the author Morph. Unt. II 195 ff., Osthoff Zur Gesch. d. Perf. 452 f. On the i-epenthesis see §§ 131. 639.

§ 235. 3. 3. pl. -αντι, Att. -ᾶσι fr. -ῆτι: ἰ-ᾶσι 'they go': Skr. *y-ānti*; ἀγ-νύ-ᾶσι 'they break in pieces, crush': cp. Skr. *śak-nuv-ānti*, Indg. *-nuḡ-ῆτι. Participial suffix -αντ- = Indg. -ῆτ- in δείξ-αντ-, ὑπερ-κῶδ-αντ-, ἀ-κάμ-αντ-, π-άντ- (§ 166 p. 147).

Rem. Some hold *εν*, and others *α* to be the regular representation of accented sonant nasal. The facts seem to us to agree best with the hypothesis given above.

§ 236. 4. *ἄ-μα* 'at once' *ἀμ-ό-* 'any one'; Skr. *sam-a-* Goth. *sum-a-* 'any one', Indg. *sm̃m-* (weak stem form beside *sm-* *sm̃-*) 'one'. Bæot. *βανά* 'wife': Armen. pl. *kan-ai-Ḳ* O.Icel. *kona*, Indg. **gyn-ā-*. Aor. *ταμείν*, *κτανείν*, *θανείν* from *τεμ-* 'cut', *κτεν-* 'kill', *θεν-* (*θείνω*) 'strike, kill'. Weak st. *δαμ-* 'house' (beside *δεμ-* in *δεσπότης*, § 204 p. 171) in *δάμ-αρτ-* 'spouse', properly 'managing the house', to *ἀρτύνω ἐπ-αρτής* (W. Schulze Kuhn's Ztschr. XXVIII 281).

Italic.

§ 237. The Indg. sonant nasals became in the prim. Ital. period *en*, *em*, *eñ*, and thus fell together with Indg. *e* + nasal. In the same manner as in the latter combination *e* passed into *i* in Latin, e. g. *sin-gulī* (Indg. **sm̃-*) like *tinguō*: Gr. *τέγγω*, s. § 65 p. 53.

§ 238. 1. Lat. *sim-plex sin-gulī*: Gr. *ἄ-παξ*, Indg. **sm̃-one*. *centu-m*: Lith. *szimta-s* 'hundred', Indg. **kmtó-m. vīgintī*: Gr. *ἑκατὶ* (cp. § 232); *vīcēsīmu-s* fr. **vīcent+timō-* (§ 208): Gr. Bæot. *ἑκαστό-ς*. *decem*, Umbr. *desen-duf* 'duodecim': Skr. *dāśa*.

cēnsu-s (for regular **censtu-s*), Osc. *an-censto* nom. sg. fem. 'incensa' *censtom-en* 'in censum': *śastá-* 'spoken, valued', Indg. **kys-tó-*. *ēnsi-s*: Skr. *ast-ś* 'sword'. Lat. *emō*, Umbr. *emantur* 'accipiantur', Osc. *pert-emet* 'perimet', fr. **ym-ō* = Lith. *imù* O.Bulg. *imā* 'I seize, take' (§ 219 rem. 2) from rt. *nem-* 'allot' (Gr. *νίμω* 'I deal out, possess', Goth. *nima* 'I take'); **ymō* first became **ymō̃*, thence *emō*. *tentiō*: Skr. *tati-ś* 'row', Gr. *τάσι-ς* 'a stretching'. Suffix *-men-to-* = Skr. *-ma-ta-*, Gr. *-μα-ρο-* Germ. *-mun-da-*: *testā-mentu-m* (fr. **terstā-mentu-m*), Osc. abl. *trístaa-mentud*. *iūven-ta*: Goth. *junda* (*jūnda*?) 'youth', cpf. **juyyn-tā* or **juyyn-tā*. *triēns* to Gr. *τριάς*, like Skr. *dāśāt* 'decade' to Gr. *δεκάς* ¹⁾. Lat. *-ōnsu-s*

1) Either the nom. sg. and loc. pl. of these Gr. substantival numerals in *-άς* were the occasion of their passing into the analogy of *δ*-stems (cp.

-*ōsu-s* e. g. in *ōtrōsus* (*n* preserved in *formōnsus* etc.) explained by Osthoff¹⁾ as fr. **-ouensso-*, **-o-unt+to-*, orig. the weak form of the suffix *-uent-* (Skr. *-vant-*, Gr. *-φεντ-*), *-to-* participial suffix as in *ūbertu-s*, *vetustu-s*, *aegrōtu-s* etc. Participial st. *rudent-*: Skr. *rudat-* (Indg. **rudnt-*; beside the strong form **rudōnt-*: Skr. *rudánt-*), from *rudō*: Skr. *rudāmi* 'howl, moan'. Acc. pl. *ped-ēs*, Umbr. *ner-f* 'nerones, proceres' fr. prim. Ital. **-ens* (§§ 208. 209), Indg. **-us*: Skr. *-as*, Gr. *-ας*. *nō-men*, Umbr. *nu-mem* *no-me* 'nomen', Indg. **-m̥*: Skr. *nā-ma*, Gr. *ὄνομα*, O.Ir. *ainm n-* 'name'; analogously *ungu-en*, Umbr. *um-en* 'unguen': O.Ir. *imb n-* *n*. 'butter', cp. Gr. *ἄλειψ-α*, *κάρᾱ* fr. **καρᾱσ-α*; concerning the Umbr. endings *-em*, *-e*, *-en* s. § 209.

dingua *lingua* (§ 369): Goth. *tuggō* OHG. *zunga* 'tongue'; if O.Bulg. *j-ęzykū* Pruss. *insuwis* 'tongue' also belong here, it follows that the prim. f. is **d̥g̥h-ua*, and that *d-* has been dropped in Baltic-Slavonic; s. Bezzenberger in his Beitr. III 134 f., Bersu Die Guttur. 148 f. *juvencu-s*, Umbr. *ivengar* 'iuvencae': Skr. *yuvaśā-s*.

§ 239. 2. *veniō veniunt* (transferred into the analogy of verbs in *-īre*): Gr. *βαίνο*, Indg. **gm̥-īō*, rt. *gem-* 'go' (cp. § 208).

§ 240. 3. Umbr. *s-ent* 'sunt', O.Lat. *s-i-ent* 'sint', s. § 226. The participial st. *s-ent-* 'being' (Lat. *prae-sēns*, Osc. *prae-sentid* 'praesente') corresponds both to the accented form Skr. *s-ánt-* Indg. **s-ūt-* and to the unaccented form Skr. *s-at-*, Gr. *ἔατ-* Indg. **s-ūt-*.

§ 241. 4. *tenu-i-s* fr. Indg. **tyn-ú-*, § 227. *hemō* (*nēmō* fr. **ne-hemō*) acc. O.Lat. *hemōn-em*: Goth. *guma*, gen. *gumins*, 'man'; these forms stand to Pruss. *smoy* Lith. *žmū* 'man' (pl. *žmónės*) in the same relation as Indg. **gm̥nd-* to **gnā-* 'wife' (§ 227).

septimus, *decimus*, *nōnus* (in the first instance fr. **noueno-s*, O.Lat. inscrip. *noine*) fr. **septm̥m-o-s*, **dek̥mm-o-s*, **neup̥m̥n-o-s*,

νένουες for regular **νενουτες*, § 327), or there existed a prim. Indg. interchange of tenuis and media (§ 469, 7).

1) communicated by letter.

s. § 231. Superlative suffix *-timo-* (*op-timu-s*): Skr. *-tamá-* (*ya-tamá-s* 'which of many', relat.), Goth. *-tuma-* *-duma-* (*af-tuman-* 'latter', *hlei-duman-* 'left'), Indg. **-tymó-*. There exists a doubt regarding *terminus*, to *termen* (cp. Umbr. *term-nom-e* 'ad terminum', Osc. *teremnattens* 'terminaverunt'), as to whether we have here prev. Ital. *ŋn*, or whether old *n* first became vocalic in Ital. itself, since gen. sg. *termin-is* could exactly correspond to Skr. *tárman-as* (cp. *bráhman-a*, § 231). The same doubt exists with regard to *fēmīna*, *domīnu-s* beside *domnu-s*, *lāmīna* beside *lāmna* and many other similar forms. Furthermore *-in-* could here also be Indg. *-en*¹⁾

O. Irish.

§ 242. Indg. *nasalis sonans* and Indg. *e* + *nasalis consonans* had fallen together in Irish before consonants, as in Ital. But they still existed apart in prim. Keltic, as is 'shown by the different treatment in the Britt. branch (see Zimmer Kuhn's Ztschr. XXVII 450). Antesonantal *-ŋn-* (according to Thurneysen) became *-an-* already in prim. Kelt.; cp. § 298, 3.

§ 243. 1. *cēt* 'hundred': Cymr. Bret. *cant* Corn. *cans*, Lith. *szimta-s*, Indg. **kmtó-m*. *fiche*, gen. *fichet*, 'twenty': Mid. Cymr. *ugeint* Corn. *ugans* Skr. *vīṣatī-*, Lat. *vīgintī*. *cēt*, unaccented form *cita-*, 'with': Cymr. *cant* Corn. *cans*, Gr. *κατά*. *dēt* 'tooth': Cymr. *dant* Corn. *dans* Goth. *tunþ-u-s* (cp. § 244), Skr. *dat-* (weak st. form in instr. sg. *dat-ā* etc. beside the strong *dánt-* = Gr. *ὀδόντ-* OHG. *zand* OS. *tand* Lith. *dant-i-s*), Indg. **d-ŋt-* (strong **d-ó-nt-*), participle from rt. *ed-* 'eat'; the indic. would be **d-é-ti*. *ér-mitiu* 'honor': Lat. *mentiō*, Skr. *matī-ṣ*, Indg. **mṇ-tī-s* from rt. *men-* 'think'. *óac óc* 'young': Cymr. *ieuanc* O.Corn. *iouenc* Bret. *iaouank*, Lat. *juvencu-s*, Skr. *yuvaśá-s*.

deich n- 'ten': Skr. *dáśa*, Lat. *decem*. *nōi n-* 'nine': Skr. *náva*, Indg. **neŋŋ*. *ainm n-* 'name': Gr. *ὄνομα*, Indg. *-mṇ*.

1) Cp. the conjectures of Thurneysen Kuhn's Ztschr. XXVI 308 and of Stolz Lat. Gramm. p. 166 f.

On the treatment of the prim. Ir. combination *-en-* in these words cp. §§ 211. 212.

2. Examples for Indg. *-ŋi-*, *-ȝi-* are unknown to us.

3. *it* 'sunt' (proclitic) with Cymr. *ynt* goes back to **enti*. This was an analogical transformation of **senti* = **s-ŋti* (§ 226), s. Zimmer Kelt. Stud. II 133.

5. *tana* : Corn. *tanoio* Bret. *tanav* 'thin', Skr. *tanú-ṣ*, Indg. **tȝn-ú-*. *samail* 'likeness, picture' : Cymr. *hafal* 'similis', Gr. *ἄμ-α*, Indg. **sȝm-*. *sechtmad* 'septimus' fr. **sechtmad*, s. § 231.

Germanic.

§ 244. 1. Goth. OS. *hund* OHG. *hunt* O.Icel. *hund-rað* 'hundred' : Lith. *szim̃ta-s*, Indg. **k̃mtó-m*. Goth. *tathun* 'ten' : cp. Lith. *dėszimt*, pl. *dėszimt-s* (the *-t* in *dėszimt* cannot of course be a final *-t* which has remained from the Indg. period), *taihunda* 'tenth' : Lith. *deszĩmta-s*, Gr. *δέκαρο-ς*, prim. f. **dek̃mt* and **dek̃mtó-s*. The Goth. stem *tigu-* 'decade', originated in the dat. pl., *tigum* fr. **tezum-m(i)* : cp. Skr. *daśábhiṣ* fr. **dek̃m-bhiṣ*; *tigum*, associated with *sunu-m*, occasioned the passage into the *u*-declension. Goth. *ga-qunþi-* 'a meeting, synagogue' (*q* for regular *k* §§ 180. 444 b.), OHG. *cumft cunft* 'a coming' (for the *f* s. §§ 214. 529) : Skr. *gáti-ṣ*, Gr. *πάσι-ς*, Lat. *in-ventiō*, Indg. **gȝn-ti-* from rt. *gem-* 'go'. Prim. Germ. final *-un* = Indg. *-ŋ* became by § 214 Goth. *-u*, acc. sg. *tunþ-u* 'dentem' *fōt-u* 'pedem' : Gr. *-α*, Lat. *-em*.

Goth. *bundum* OHG. *buntun* O.Icel. *bundom* 'we bound', to *band bant batt* 'I bound' (rt. *bhendh-*) : cp. Skr. *tastabhimá* to *tastámbha* (rt. *stembh-* 'fasten') and Gr. *πεπαθῆναι* to *πέπονθα* (*πενθ-* 'suffer'). Goth. *vunds* OHG. *wunt* 'wound' : Gr. **Fató-* in *Faráλαι* 'οὐλαί Hesych. (cod. *γατάλαι*), from rt. *ȝen-* (Goth. *vinman* 'to suffer, feel pain'). OHG. *wuntar* OS. *wundar* 'wonder' : Gr. *ἀθρέω* 'I gaze at, observe' fr. **Fathréō*. Goth. *undar* OHG. *untar* 'under' : Skr. *adhás* 'below' *ádharma-s* 'the lower' *adhamá-s* 'lowest' (concerning Lat. *inferu-s infimus* cp. § 389 rem.). Goth. *t-unþ-u-s* 'tooth' : Skr. *d-at-* etc., s. § 243; *tunþ-* was due to a levelling of the prim. Germ. st. form **tánþ-* (OHG. *zan*, § 527)

and **tund-*, Indg. **dónt-* and **dýt-*, s. § 530. The same participial suffix *-ýt-* in Goth. *hulundi* f. 'cave' (cp. § 301). Suffix *-munda-* = Skr. *-mata-*, Gr. *-ματο-*, Lat. *-mento-*, Indg. **-m̥y-tó-* : Goth. *sniū-mundō* adv. 'hastily', OHG. *hliu-munt* 'renown'. Ending of the acc. pl. Goth. *-uns* = Skr. *-as*, Gr. *-ας*, Lat. *-ēs*, Indg. **-ys* : Goth. *tunþ-uns* 'teeth' *fōt-uns* 'feet' *brōþr-uns* 'brothers' *aúhsn-uns* 'oxen' ¹⁾

Goth. *þugkjan* OHG. *dunchan* 'to seem, appear', prim. f. 1. sg. **t̥g̊-īð* or **t̥g̊-īð* : O.Lat. *tongēre* 'to know', from rt. *teñg-* or *terag-*. Part. pass. OHG. *slungan* 'wound' O.Icel. *slungenn* 'slung', inf. OHG. *slingan* O.Icel. *slyngva* : Lith. *slinkti* 'to creep, sneak', rt. *slerag-*.

§ 245. 2. Goth. *kunja-* (nom. acc. *kuni*) OHG. *cunni* O.Icel. *kyn* 'race, generation' fr. **g̊y-īo-* rt. *gen-* 'gignere'; with these Gr. *ὁμό-γνιος* 'of the same race' (Goth. *sama-kunja-*), which represented a secondary form **g̊n-īo-* (§ 142 p. 128); *kunja-* probably corresponds to Lat. *geniu-s ingeniu-m*. Goth. *munjáu* opt. to *munan* 'to think' rt. *men-*, prim. f. of the strong opt. stem **m̥y-īē-*. Stem form Goth. *laúhmunjō-*, e. g. gen. sg. *laúhmunjōs* (nom. *laúhmuni* f. 'lightning'), fr. **-m̥y-īā-*, s. § 234. Goth. *glit-munja* 'I shine' fr. **-m̥y-īð* : cp. Gr. *στεγαίνω* 'I fructify', Skr. *brahmanyāmi* 'I pray'. O.Icel. *symja* 'to swim', pres. st. prim. Germ. **s(y)um-īā-* (on the loss of the *y* s. § 180 p. 158), prim. f. **sym-īo-* (Sievers Paul-Braune's Beitr. VIII 86).

-nni- fr. *-nī-* in West Germ., e. g. OHG. gen. sg. *cunnies* *cunnes* dat. pl. *cunnum cunnum* (Ags. *cynnes cynnum*) = Goth. *kunjis kunjam*. Cp. § 215.

§ 246. 3. Ending of 3. pl. *-ñti*, *-ñt* in O.Icel. *eru* 'are', O.Icel. *vissu* OHG. *wissun* 'knew', s. § 226.

§ 247. 4. Goth. *sums* O.Icel. *sumr* 'any one' : Skr. *sam-a-*, Gr. *ἀμ-ό-*, Indg. **sym-ó-* from rt. *sem-*. Goth. *un-vunands* 'not rejoicing' : Skr. *vanāti* 'he gains, loves', Indg. 3. sg. **y̥nn-é-ti*. In like manner Goth. *munan* 'to think' (rt. *men-*) and OHG.

1) To be read thus I. Cor. IX. 9 instead of Ms. form *auhsunns* s. Kögel Paul-Braune's Beitr. VIII 115.

koman OS. Ags. *cuman* O.Icel. *koma* 'to come' the latter to Skr. *gamāti* (rt. *gem-*). Superlative suffix *-duman-*, to Skr. *-tamá-* Lat. *-timo-*, Indg. *-tymó-*, see § 241.

On the change of *u* to *o* before *o* or *a* in the following syllable in West Germ. and Norse cp. § 51. This change did not take place before nasal + consonant, hence OHG. part. *buntan* (§ 244) beside *koman* etc.

Baltic-Slavonic.

§ 248. The Indg. sonant nasals became *i* + nasal in the prim. Balt.-Slav. period. This *i* was open and still separate from Indg. *i*, as follows from the fact that Indg. *in* is represented in Slav. by *ī* before explosives and spirants, whereas Indg. *ɲ* in the same combinations is represented by *ę*. See § 219. We denote the prim. Baltic-Slav. and prim. Slav. equivalents of *ŋ*, *ɲ* by *im in*. Throughout the whole Baltic branch *im*, *in* arose from *im in*, so that all distinction between these and Indg. *im*, *in* was lost.

§ 249. 1. Lith. *deszimta-s* O.Bulg. *desētū* 'tenth' : Gr. *δέκατος*, Goth. *tathunda*, Indg. **dekmtó-s*. Lith. *kimszta-s* 'stuffed, stopped', O.Bulg. *čestū* 'dense', to Lith. pres. *kemszū* 'I stuff, stop'. Lith. *giñti* 'to be born' (pres. *gemū*), *pri-gimtī-s* 'inborn peculiarity', probably from rt. *gem-* 'come' (Osthoff Zur Gesch. d. Perf. 103) : cp. Skr. *gāti-ś*, Gr. *βάσις*, Goth. *ga-qumþi-*, Indg. **gm-ti-*. Lith. *rimti* 'to become composed in mind' *rimta-s* 'fast' : Skr. *rāti-ś* 'rest, repose, ease' *ratá-* 'tarrying with something, devoted to a thing, being pleased with something', Gr. *ἐπαιρός* 'lovely' (§ 233), rt. *rem-*. Acc. sg. Lith. *dūktėr-į* O.Bulg. *dūšter-e* 'daughter', prim. Baltic-Slav. **dukter-in* : Gr. *θυγατέρα*; Lith. *vėžant-į* 'vehement' : Gr. *φέροντα*, Lat. *vehent-em*.

Lith. *at-mintī-s* 'memory', O.Bulg. *pa-męti* 'remembrance' : Skr. *matī-ś*, Lat. *mentiō*, Goth. *ga-mundi-*, Indg. **mɲ-ti-* from rt. *men-*. Lith. *giñti* 'to drive (cattle)' *ap-ginti-s* 'defence', O.Bulg. *žęti* 'to hew, mow' : Skr. *hati-ś* 'a blow', Indg. **ghɲ-*

ti-s; Lith. *ginczià* and *giñczia-s*¹⁾ 'combat, quarrel': Skr. *hatyā* 'a killing', OHG. *gundea* (Hildebr. 60 *gūdea*) 'fight, combat', Indg. **ghṇ-tiā-*, from rt. *ghen-*. Pruss. *newīnts* Lith. *deviñta-s* O.Bulg. *devetū* 'ninth' (concerning the first syllable of the word s. § 68 rem. 1): Goth. *niunda*, Gr. *ἐνατος* fr. **ēvFaro-ς* (§ 166), prim. f. **neṇṇ-tó-s*; cp. also O.Bulg. *devetī* 'nine': Av. *navaiti-* 'ninety'; Skr. *navati-* 'ninety'. Lith. *tįsti* 'to stretch one's self out, extend' (beside *tesiu* 'I stretch'): Skr. *vī-tasti-ś* 'a span' (causat. *taśáyati* 'he draws to and fro'), cpf. **tṛs-ti-s*, from rt. *tens-*, cp. also Germ. *ḥuns-* in the OHG. part. *gi-dunsan* 'swollen', to pres. *dinsan*.

Concerning Lith. *imū* O.Bulg. *imā* fr. **ṃm-ō* and O.Bulg. *imē* fr. **ṇ-mēn* see § 219 rem. 2.

Pruss. *insuwi-s* O.Bulg. *j-čzykū* 'tongue', perhaps to Lat. *lingua lingua* Goth. *tuggō* s. § 238; Lith. *lėžiūvi-s* for **ižuvi-s* through a popular confusion with *lėžiū* 'I lick'. O.Bulg. *peštī* f. 'fist': OHG. *fūst* 'fist' (prim. Germ. **fuṇṣti-z*, s. § 214 p. 181, and § 527 extr.), cpf. **pṛḱsti-s*, possibly to Goth. *figgrs* 'finger'. Lith. *liñkti* 'to bend one's self' *liñkęs* 'inclined, bent', beside *lenkiū* 'I bend' *lankū* 'valley' (O.Bulg. *lešti* 'to bend' can be both Lith. *liñkti* and *leñkti* 'to bend', cp. Leskien Arch. f. slav. Phil. V 507. 527).

§ 250. 2. Lith. *miniū* 'I think of', O.Bulg. *mīnjā* 'I think': Skr. *mānyatē* 'thinks', Indg. pres. st. **mṇ-ṅé-* from rt. *men-*. O.Bulg. *šinjā* 'I cut off, reap': Skr. *hanyátē* 'is struck', Indg. pres. stem **ghṇ-ṅé-* rt. *ghen-*. Here probably also belong part. perf. act. *pīnū* (pres. *pīnā* 'I stretch out, hang') from **pīnvū* and *līnikū* 'thin' (compar. *līnējī*) fr. **līnv-ī-kū*, like Skr. *tanvī* fr. **tṇ-ṇ-i* (§ 225).

§ 251. 3. *-ṅti* in O.Bulg. *jad-čtī* 'they eat', *-ṅtī* in O.Bulg. aor. *bas-č* from *bodā* 'I sting, stab', see § 226. It is possible on account of Skr. *dād-ati* that the *-čtī* in *dad-čtī* 'they give' (*dad-* = Lith. *dūd-*) arose from *-ṅti* (with unaccented *ṇ*).

§ 252. 4. Lith. *pinū* 'I bend' O.Bulg. *pīnā* 'I stretch out,

1) Thus spoken in the dialect of Godlewa and probably also elsewhere. Kurschat (Gramm. p. 28) writes *giñczas*.

hang', Lith. *minù* 'I tread on' O.Bulg. *mīnq* 'comprimo', Lith. *ginù* 'I check, keep off', Russ. *žnu* 'I cut off, reap' (on the loss of the *ž* s. § 36), like Skr. *vanāmi* (§ 231). Part. pf. act. fem. Lith. *minusi* (*miñti* 'to think of') O.Bulg. *pīnūši* (*pēti* 'to stretch out'), cp. Skr. Ved. *jajan-úr* (beside *jajñ-úr*) 3. pl. pf. act. from *jan-* 'beget', *tatan-ē* (beside *tatn-ē*) 1. sg. pf. mid. from *tan-* 'stretch, extend'.

Rem. The Zographos gospel has occasionally *ǣ* for *ī* before non-palatal vowels, e. g. *tūma* 'darkness' (prim. f. **tym-ā*) beside *tīmīnū* 'dark'. Cp. § 36 rem.

2. Long sonant nasals.

§ 253. The question, first discussed by de Saussure, as to which sounds and sound-combinations have arisen in the Indg. languages from long nasalis sonans (Mémoire sur la système primitif des voyelles 1879 p. 239 ff.; cp. besides especially Osthoff Morph. Unt. IV p. IV and p. 280, Zur Gesch. d. Perf. 30. 55. 331. 367. 373 ff.), has not hitherto, in many respects, been satisfactorily solved, just as in the case of the Indg. long sonant liquids (§ 306). The probable results of the investigations hitherto made, are as follow: — In Ar. *a* = *ā*, *ā*, corresponding to *a* = *ā*, *ā*. In Gr. between consonants *ā* (Ion. Att. *η*) = *ā*, *ā*, initially *νā-* (Ion. Att. *νη-*) = *ā*. In Lat. *nā* and *an-* from *ā*, corresponding to Gr. *ā* and *νā-*. In Arm. initially *an-* from *ā*. Nothing in any degree certain has, as yet, been determined for the other languages. Examples:

2. pl. pret. Skr. *āgata* Gr. Dor. *ἄγατα* Ion. Att. *ἄγατα*, cpf. **é gñté* rt. *gem-* 'go'. The stem form **gñ-* forced its way into the sg. act. also, hence Skr. *āgām āgās āgat* Gr. *ἄγαν ἄγαν* beside Skr. *āgamam āgan āgan*.

Skr. *jatā-s* 'born, son' Av. *zata-*, Skr. *jāti-ś* f. 'birth', Lat. *gnātu-s nātu-s, nātiō* (cp. also Gall. *Cintu-gnātu-s* 'first-born' according to Thurneysen Keltorum. 2), from rt. *gen-* 'gignere'. Analogously Skr. *sātā-* from *san-* 'reach', *vātā-* from *van-* 'to like', *ghā-ta-s* 'killing; blow, a putting to death' *ghā-ti-* 'blow, a wounding' from *han-* 'strike, kill' etc.

Skr. *jānāmi* 'I recognise, know', O.Pers. 3. sg. pret. *adānā* (= Skr. *ājanāt*), prim. f. **ǵṛ-nā-mi*, Lat. *gnāru-s*, prim. f. **ǵṛ-ró-s* (formed like *dū-ru-s*), rt. *ǵen-* 'noscere'.

Skr. *āta-* f. 'rim, door-frame', Arm. -*and* in *dr-and* 'door-post, threshold', Lat. *anta* 'four-cornered door-pillar, pilaster').

Skr. *āti-ṣ* f. 'a water-fowl', Gr. *νῆσσα* 'duck' fr. **νār-ḱa*, (with these also Lat. *anas anitēs*, OHG. *anut*, Lith. *ánti-s* 'duck' we venture to make no assertion as to their phonetic-relations).

Skr. *yātar-* 'wife of the husband's brother'; that the *a* arose from *ṛ* is probable on account of Gr. *εἰνάρετες*, Lat. *janitrīcēs*, O.Bulg. *jetry*.

Further *a* = *ṛ* in the Skr. nouns *jā-s* (loc. pl. *jā-su*) 'born, creature, being' (here orig. also *pra-jā-* 'progenies', which, going out from forms like loc. pl. *pra-jāsu*, passed into the *a*-declension), *vaṣa-sā-s* 'lending power' (cp. *vāṣa-sāti-ṣ* f. 'a reaching of power', Skr. *san-* 'reach, attain' and 'distribute, administer'). With *a* = *ṛ* *samana-gā-s* 'going to the place of assembly'. These nouns are on the same footing as *gīr* 'commending; praise', *pūr* 'citadel', s. §§ 306. 312.

Skr. Ved. *nā-mā* 'nomina' probably fr. **mṛ*, hence *nā-mā* : *nā-ma* = *purā* : *purū*.

Greek *νᾶ-νῆ-* 'un-' in Dor. *νᾶ-ποινος* Hom. *νῆ-κερδής* etc., Umbr.-Samnit. *an-* 'un-' in Umbr. *an-hostatu* 'inhastatos' Osc. *an-censto* nom. sg. 'incensa' etc. fr. **ṛ-* (W. Schulze Kuhn's Ztschr. XXVII 606).

LIQUIDS.

A. LIQUIDS AS CONSONANTS.

Indg. primitive period.

§ 254. One of the most difficult questions of Indg. phonology is to determine how many liquids the Indg. prim. language possessed and what their nature was (cp. Sievers *Phonetik* ³ p. 104 ff.).

1) If the Av. *ἄπαζ λεγόμενον qīpyā-* should mean 'door-post' and be connected with Skr. *ātā-* (Zimmer *Altind. Leben* 154), its first syllable

That there were at least two liquids, is seen by the circumstance that the European languages and Armenian agree in presenting *r* in many cases and *l* in others. *r* e. g. in Arm. *berem* Gr. *φέρω* Lat. *ferō* O.Ir. *berim* Goth. *baíra* 'I bear' O.Bulg. *berq* 'I take'. *l* e. g. in Arm. *li* (gen. *lioy*) Gr. *πλήρης* Lat. *plē-nu-s* 'full' O.Ir. *línaim* 'I fill', O.Icel. *fleire* 'more' *flestr* 'most', Lith. *pìlna-s* O.Bulg. *plünū* 'full'.

A fixed law of representation has not yet been gained for the Skr. liquids.

The Skr. equivalents of Europ.-Arm. *r* are 1) mostly *r*. *bhárāmi* : Gr. *φέρω*. 2) *l*. *lún̄cati* 'he picks, plucks, plucks out' : Gr. *ὀρύσσω* 'I dig', Lat. *runcāre* 'to weed out', Lith. *runkū* 'I become wrinkled' *raũka-s* 'wrinkle'. 3) *r*, later *l*. *rup-* *lup-* 'tear, break' : Lat. *rumpō*, Ags. *reófan* O.Icel. *rjāfa* 'to break, tear in pieces'.

Corresponding to europ.-Arm. *l* we have 1) in most cases *r*. *prātá-s* 'filled' : Lat. *plētus* (according to O. Weise Bezenb. Beitr. VI 115 Skr. *r* always corresponds to Gr. *λ* after *k̄*-sounds, e. g. Skr. *śrávas* : Gr. *κλίφος*). 2) *l*. *tulá* 'balance' : Gr. *τάλαντον* 'balance', Lat. *tollō*, O.Ir. *tallaim* 'I take away', Goth. *þulan* 'to endure, suffer'. 3) *r*, later *l*. *rip-* *lip-* 'smear' : Gr. *λίπος* n. 'fat', Lat. *lippu-s* 'blear-eyed', Goth. *bi-leiban* 'to remain' (cp. Gr. *λπαρίω* 'I persist in a thing'), Lith. *limpū* O.Bulg. *pri-lī(p)na* 'I stick, glue'.

The laws for these differences still remain to be investigated. It does not seem to be a mere accident that Skr. *l* = Arm.-Europ. *l* occurs much more frequently than Skr. *l* = Armen.-Europ. *r*¹).

must in that case be strong-grade. The interpretation of the passage in question is however doubtful.

1) "There is hardly a root containing an *l* which does not show also forms with *r*; words written with the one letter are found in other texts, or in other parts of the same texts, written with the other. In the later periods of the language they are more separated, and the *l* becomes decidedly more frequent, though always much rarer than the *r* (only as 1 to 7 or 8 or 10)". Whitney Sanskrit grammar § 53.

Old Iranian had only *r* as opposed to Arm.-Europ. *r* and *l* and Skr. *r* and *l*. O.Pers. *l* only in loan-words. It still remains to be investigated whether, and how far the *l*-sounds in the younger Iran. dialects are to be taken into account for fixing the development of liquids in pre-historic times.

With this state of things¹⁾ it seems to be most suitable to put down the Indg. primitive forms after the standpoint of the Europ. languages and Armenian, thus e. g. **bhérō* 'I bear', **plētō-s* 'filled'.

Rem. W. Heymann 'Das *l* der idg. Sprachen gehört der idg. Grundsprache an', Weimar 1873, p. 1 ff., and D. Pezzi Glottologia ariac recentissima, Torino 1877, p. 17 ff., give a summary of the older views, which have been put forth, regarding the previous history of the *r*- and *l*-sounds met with in the Indg. languages in historic times.

§ 255. Indg. *r*. Rt. *reydh-* 'to be red': Gr. ἔρυθρός Lat. *ruber* (gen. *rubrī*) Umbr. *rofu* 'rubos' O.Ir. *ruad* Goth. *ráuþs* 'red', O.Icel. *roðra* f. 'blood', O.Bulg. *rǫdrǫ* Skr. *rudhirá-s* 'red'. Stem **dhuer-* 'door, gate' (with gradation): Arm. *duṛn* gen. *dran*, Gr. Arcad. *θύρ-δα* 'out' Att. *θύρᾱ*, Lat. pl. *forēs*, O.Ir. *dorus*, Goth. *daúr*, Lith. pl. *dūr̃ys*, O.Bulg. *dvorǫ* ('yard'), Skr. *dvār- dūr-* (*d* for *dh* § 480). Stem **qetuer-* 'four' (with gradation): Arm. *çor-k*, Gr. Delph. *τέτορες*, Lat. *quattuor*, O.Ir. *cethir*, Goth. *fidvōr*, Lith. *ketverī* 'by fours' O.Bulg. *četvero* (distrib.), Skr. *catvāras*. Rt. *uerǵ-* 'effect': Arm. *gorc* Gr. *φέρων ἔργον* OHG. *werah* *werc* 'work', Av. *var'za-* 'a working'. Rt. *sreǵ-* 'flow': Gr. *ῥεῖμα* 'river', O.Ir. *sruaim* 'stream', OHG. *stroum* 'stream', Lith. *sraṽėti* 'to flow tricklingly' O.Bulg. *o-strovǫ* 'island', Skr. *srāvati* 'flows'.

Nominal suffix *-ter-*, e. g. **mā-ter-* **mā-tr-* 'mother': acc. sg. Arm. *mair*, Gr. *μητέρα*, Lat. *mātem*, O.Ir. *māthir n-*, OHG. *muoter*, Lith. *móterī* ('wife') O.Bulg. *matere*, Skr. *mātáram*;

1) Indg. *l* beside *r* could be held as definitely proved if Fortunatov's rule had a firmer basis viz.: that, where in Skr. a cerebral consonant appears as representative of an original liquid + dental, this liquid is the regular correspondent of Europ.-Arm. *l* (Bezenberger's Beitr. VI 215 ff.). F's examples, to which a few others have been added by Windisch Kuhn's Ztschr. XXVII 168, are for the most part etymologically very uncertain, nor are unexplained exceptions wanting. Cp. § 259.

voc. Gr. *μῆτερ*, Skr. *mātar*. *r* as element of the ending of the 3. pl. mid. : Lat. *sequontu-r* O.Ir. *sechiti-r* 'they follow', Skr. *riric-ré* perf. from *ric-* 'to let loose, leave'.

r as consonantal glide after *r*, e. g. **grr-ú-* 'heavy', see §§ 284. 287.

§ 256. Indg. *l*. Rt. *leiq-* 'leave' : Armen. *lk-ane-m* Gr. *λείπω* Lat. *linquō* O.Ir. *lēcim* 'I leave', Goth. *leihva* 'I lend', Lith. *lėkū* 'I leave' O.Bulg. *otŭ-lėkŭ* 'remnant', Skr. *rinākti* 'lets loose, leaves'. Rt. *gel-* 'fall, drop' : Gr. *βολή* 'a throw', OHG. *quellan* 'to spring, gush', Lith. *gāla-s* 'end', Skr. *gāla-ti* 'trickles down'. Rt. *uelq-* 'drag, tear, draw' : Gr. *ἐλκω* 'I drag, draw', *ἐλκος* 'wound, sore', Lith. *velkū* O.Bulg. *vlėkq* 'I drag, draw'; to the same root Skr. *vṛka-s* 'wolf'. Rt. *klei-* 'lean' : Gr. *κλίνω* 'I lean, bow', Lat. *clivo-s* 'hill', O.Ir. *cloen* 'slant, unjust, wicked', Goth. *hláins* 'hill', Lith. *sžlaĩta-s* 'mountain-slope', Skr. *śráya-ti* 'leans against, puts to'.

Nominal suffixes *-lo-* *-lā-* *-lu-*. Arm. *dai-l da-l* 'beestings', Gr. *θη-λή* 'teat, nipple' *θη-λν-ς* 'nourishing, suckling, of female sex', Lat. *fē-lare* 'to suck', O.Ir. *de-l* 'teat, dug', OHG *ti-la* 'a woman's breast', Lith. *pirm-dėlė* 'she who has given birth for the first time', cp. Skr. *dhā-rú-ṣ* 'sucking', Kurd. *dē-l* 'little woman'.

l as consonantal glide after *l*, e. g. root form *tl̥l*, s. §§ 284. 287.

Aryan.

§ 257. Indg. *r*. Skr. *rādha-ti* 'brings about, prepares, satisfies' Av. *rāḍaiti* 'prepares, gives' O.Pers. *avahya-rādhīy* 'on that account, therefore' : Goth. *ga-rēdan* 'to provide' O.S. *rādan* 'to advise, help', O.Bulg. *raditi* 'to provide, take care of'. Skr. *pāri* Av. *pairi* O.Pers. *pariy* 'about, over, against' : Gr. *πέρι*, Lat. *per-* in *permāgnus*. Perf. Skr. *da-dārś-a* Av. *dā-dar's-a* 'I saw' : Arm. *tes-ane-m* 'I see' (§ 263), Gr. *δέχομαι* *δέδορκα*, O.Ir. perf. *ad-chon-darc* 'I saw', Goth. *ga-tarhjan* 'to mark out', rt. *derk-*. Skr. *pra-* Av. O.Pers. *fra-* 'before' : Gr. *πρό*, Lat. *prōd prō*, O.Ir. *ro*, Lith. *pra-* O.Bulg. *pro-*, Indg. **pro*

'before'. Skr. *ud-rá-* Av. *ud-ra-* a water-animal : Gr. *ὔδ-ρο-ς* *ὔδ-ρᾱ* 'water-serpent', O.Icel. *otr* OHG. *ottar* 'otter', Lith. *úd-ra* O.Bulg. *vyd-ra* 'otter'.

Skr. *rikh-* *likh-* 'scratch, tear', *rēkhā-* *lēkhā-* 'scratched streak, stroke, line' : Gr. *ἐρείκω* 'I tear open, up', Lith. *rėkiū* 'I cut, plough'.

§ 258. Indg. *l*. Skr. *rēcāya-ti* Av. *raēcayēiti* 'leaves, abandons' : Arm. *lk-ane-m* Gr. *λείπω* etc., see § 256. Skr. *śráv-as-* n. 'renown', Av. *sraṇ-ah-* n. 'word, prayer', Skr. *śru-tá-* Av. *srū-ta-* 'heard, renowned' : Arm. *lu* 'audible' (P), Gr. *κλέφος* *κλέος* n. 'renown' *κλυτός* 'renowned', Lat. *in-clutu-s*, O.Ir. *clū* 'renown' *cloth* 'renowned', Goth. *hluma* m. 'ear, hearing', OHG. *Ludo-wīg* 'Κλυτόμαχος', O.Bulg. *slovo* n. 'word'.

Skr. *rōca-tē* 'lights' *rōkā-s* 'light' *lōkā-s* 'a lighting, open space', Av. *raocah-* n. 'splendour' O.Pers. *raucah-* n. 'day' : Arm. *lois*, gen. *lusoy*, 'a light', Gr. *λευκός* 'white', Lat. *lūx lūc-is*, O.Ir. *lōche* 'lightning', Goth. *liuhaft* 'light', Lith. *laũka-s* 'palish' O.Bulg. *luča* 'beam, ray', root forms *leuq-* and *leuk-* (cp. § 467). Skr. *uda-prú-t-* 'swimming in water' *plāv-a-tē* 'swims', Av. *fra-fravaiti* 'wavers to and fro' : Arm. *lua-na-m* 'I wash', Gr. *πλείω* 'I sail, swim' *πλυτός* 'washed', Lat. *pluit*, O.Ir. *luath* 'quick', OHG. *flewen flouwan* 'to rinse, wash', Lith. *pláuti* 'to rinse'.

Skr. *lúbhya-ti* 'feels a strong desire' : Lat. *lubet libet*, Goth. *liufs* O.Bulg. *ljubŭ* 'dear'. Skr. *nābhī-la-m* 'private parts' : Gr. *ὀμφαλό-ς* 'navel, umbo', Lat. *umbi-l-icu-s*, O.Ir. *imb-l-iu* 'navel', OHG. *nabolo* 'navel'.

§ 259. Skr. *r* was spoken cerebral (hence the change of prim. Ar. *n* to *ṛ* in its vicinity, § 199), *l* dental.

r became *ḥ* in absolute finality. Voc. *mātāḥ* 'O mother' : Gr. *μητήρ*. *antāḥ* 'in the inside' : Lat. *inter*. Cp. § 647, 3.

From a liquid with a following dental explosive or nasal often arose a cerebral explosive, or a nasal. *kaṭú-ś* *kāṭuka-s* 'sharp, biting' : Lith. *kartū-s* 'bitter'. *gaṇá-s* 'band, crowd' : Gr. *ἀγείρω ἀγορά*. *jaṭhāra-* 'belly, womb' : Goth. *kilpei* 'womb'. *aṇí-* 'the part of the leg just above the knee, axle peg' : Gr. *ὠλίνη ὠλλό-ν* fr. **ὠλ-ν-ο-ν*, Lat. *ulna*. *paṇa-s* 'wager, stipulation,

promised reward': Lith. *peľna-s* 'profit'. In like manner probably *láṣ-āmi* 'I long, desire' fr. **la-ls-*, cp. *la-las-a-s* 'eager for, desirous', Lat. *lascīvo-s*. It is still unexplained from what point of view such forms, as opposed to others in which the liquid apparently under similar conditions remained, are to be judged. It is not improbable that intermixture of dialects has taken place. Cp. p. 209 foot-note and in addition to the literature quoted there Fröhde Bezenberger's Beitr. III 130 ff.

Nasal from liquid through dissimilation. *cañ-cūryatē* fr. older Ved. *car-cūryātē* 'moves quickly', intens. fr. *car-*. *cañ-cala-s* 'moving to and fro', from *cal-*. *pam-phulyatē*, intens. to *phálati* 'springs assunder'. Cp. § 282.

r underwent transposition before certain consonant combinations, e. g. from *darṣ-* 'see' fut. *drakṣyāmi* (cp. Gr. *δέρξομαι*) perf. 2. sg. *dadrāṣṭha* inf. *drāṣṭum*; from *tarp-* 'to satiate one's self' perf. 2. sg. *tatrāpṭha* beside *tatārṭha*; from *sarp-* 'crawl' fut. *srapsyāmi* beside *sarpsyāmi* aor. *ásrāpsam* beside *ásarpsam*.

§ 260. Avestic. Before *i*- and *u*-vowels an anaptyctic *i* or *u* was prefixed to initial *r-*. *'rista-* part. fr. *raēp-* 'to be connected with'. *'rusta-* part. fr. *raod-* 'to grow forth'. An anaptyctic vowel arose from medial *r* before and after consonants, which, when *r* preceded, was generally represented by *e*. Perf. *dadar'sa*: Skr. *dadārśa*, Gr. *δέδορξα*, from rt. *derk-* 'see'. *e* also after *er* = Indg. *ṛ*, *ḷ*, e. g. part. *ker'ta-*: Skr. *kṛtá-* 'made', prim. f. **qṛto-* (§ 288). Other vowels more seldom, e. g. pres. *s'ru-nao-mi* from *sru-*: Skr. *śru-* 'hear': *s'ri-nao-mi* (*ni-s'rīnaomi* 'I hand down') from *sri-*: Skr. *śri-* 'direct towards, direct to'. Further *e* was suffixed to final *r*, e. g. *antar'* 'between': O.Pers. *atar* Skr. *antár*. Cp. §§ 624. 649, 4.

r became spirant before *k*, *p*, *t*, when the next preceding sonant had the chief accent. This pronunciation of the *r* was represented by *hr* before *k*, *p*, but *hrt* became *ṣ*. This law also obtained for *er* = Skr. *ṛ* (§ 288). *mahr-ka-* m. 'death, destruction' fr. **már-ka-* beside *mar'ka-* (with the same meaning) = Skr. *marká-* m. 'an injuring of the sun, a darkening'. *velrka-*:

Skr. *vyka-* 'wolf', Indg. **uḷgo-*. *kehrp-* 'form, body': Skr. *kṛp-* 'form, appearance'. *mašya-* (*mašiya-*): Skr. Ved. *mārtiya-*. O.Pers. *martiya-* 'mortal being, man'. *a-meša-*: Skr. *a-mṛta-* 'immortal' beside *mer'ta-*: Skr. *mytá-*. Cp. Bartholomae Ar. Forsch. II 35 ff. and § 674.

Rem. Prim. Ar. final *-rt*, *-ṛt* always appear as *-r^eḥ*, *-er^eḥ*, e. g. *ha-ker^eḥ* = Skr. *sa-kṛt* 'once'. The law, whereby *-t* became *-ḥ* (§ 649, 6), was therefore older than the change of *rt* to *ṣ*.

ur- was transposed with *u-* prefix, e. g. **rvāta-* n. 'a determining': Gr. *ῥοητό-ς* 'determined, settled'. See § 157.

§ 261. Old Persian. *š*, whose exact pronunciation cannot be closely defined, appears for prim. Ar. *tr* = prim. Iran. *ḫr*. *ši-*: Av. *ḫri-* Skr. *tri-* 'three'. *puša-*: Av. *puḫra-* Skr. *putrá-* 'son'. Gen. *piša-*: Av. *piḫrō* Gr. *πατρός* 'of a father'. See §§ 353. 473, 2.

Armenian.

§ 262. Indg. *r*. *erek* 'evening': Gr. *ἔριβος* n. Goth. *riqiz-a-* n. Skr. *rājas-* n. 'darkness', Indg. **regos*. *e-re-ḥ* 'three' (*e-*prothetic, § 263): Gr. *τρεῖς*, Lat. *trēs*, O.Ir. *trī*, Goth. *ḫreis*, O.Bulg. *trije*, Skr. *trāyas*, Indg. **tréi-es* 'three'. *cer* 'old man': Gr. *γέροντ-* Skr. *járant-* 'old man'. *skesur*, gen. *skesri*, 'mother-in-law': Gr. *ἐκνρά* Lat. *socrus* Corn. *hweger* Goth. *svaithrō* O.Bulg. *svekry* Skr. *śvaśrū-* 'mother-in-law'. *tu-r* 'gift': Gr. *δῶρο-ν*, O.Bulg. *da-rū*. *dustr*, gen. *dster*, 'daughter': Gr. *θυγάτηρ*.

Indg. *l*. *liz-u-m* 'I lick': Gr. *λείχω* Lat. *lingō* O.Ir. *ligim* 'I lick', Goth. *bi-láigō* 'I lick', Lith. *lėžiù* Skr. *rēhmi lēhmi* 'I lick', rt. *leiḡh-*. *ail*, gen. *ailoy*, 'alius': Gr. *ἄλλο-ς* Lat. *aliu-s* O.Ir. *aile* Goth. *aljīs* 'other'.

§ 263. *r* became *ṛ* before *n* (occasionally also in other cases without any clear reason). *duṛn*, gen. *dran*, 'door', an extension of the Indg. st. **dhur-* with the suffix *-en-*: Gr. Arcad. *θύρο-δα* 'out'. *jeṛn-u-m* 'I warm myself', beside *jer* 'warmth' *jerm* 'warm': Gr. *θέρως* *θειμό-ς*, Lat. *formu-s*. Thus also when *r* goes back to Indg. *ṛ*, e. g. *garṇ* 'lamb': Skr. *úr-aṇ-a-s* (*ur-* fr. **ur-*, § 157), Gr. gen. *ἄρ-υ-ός*, Indg. **ur+en-* (§ 291).

λ appears in some words for Indg. *r* and *l*, without the special cause being known. *astl*, gen. *astel*, 'star, constellation': Gr. *αστήρ* *ἄστρο-ν* Lat. *stella* fr. **ster-la* Bret. *sterenn* Goth. *stairnō* Skr. *stár-* 'star'. *eln*, gen. *elin*, 'hart': Gr. *ἐλλός* 'a young hart' fr. **él-v-o-s*, *ἐλαφο-ς* 'hart' fr. **el-η-bho-s*, Cymr. *elain* 'hind', O.Bulg. *jel-en-ī* 'hart'.

br, *tr*, *bl* were transposed to *rb*, *rt*, *lb*. *surb*, gen. *srboy*, 'clean': Skr. *śubh-rá-s* 'bright, pretty'. *kirtn*, gen. *krtan*, 'sweat': Gr. *ιδρώς*. *e-lbair* 'brother' (*e-* prothetic, s. below): Lat. *frater*, Skr. *bhrátar-*.

Initial liquid developed a prothetic vowel which appears as *e*, *a*:

Original initial liquid. *e-rek* 'evening': Skr. *rájas-*. *aluēs* 'fox': Skr. *lōpaśa-*.

Secondary initial liquid. *e-re-k̄* 'three': Skr. *tráy-as*. *e-lbair* brother': Lat. *frāter*. *a-lbeur* 'a spring' fr. **bleur*, older **bley(a)r*: Gr. *φρέαρ* 'a well' fr. **φρη-φαρ*.

Rem. *o*-prothesis perhaps in *orc-a-m* 'I break open' and *οιβ-a-m* 'I bewail'. See Hübschmann Armen. Stud. I 46. 47.

Indg. *r* was dropped in *tes-ane-m* 'I see': Gr. *δέρομαι*. The reason of its dropping out is unknown.

Greek.

§ 264. Indg. *r*. *ῥέγω* 'I stretch out': Lat. *regō*, O.Ir. imper. *ē-rig* 'erect thyself', Goth. *uf-rakja* 'I lift up'. *πέρα* 'beyond, further' *περάω* 'I pass through' *πόρο-ς* 'passage, ford, way': Arm. *heri* 'far, distant', Lat. *per-egre* 'in a foreign land', O.Ir. *ire* 'ulterior', Goth. *farjan* 'to sail, drive', O.Bulg. *perq* 'I traverse', Skr. *pāra-s* 'more distant, farther'. *ὑπὲρ ὑπείρ* (fr. **ὑπερκ*, §§ 131. 645 final 2) 'over' *ὑπερο-ς* 'pestle': Lat. *s-uper*, Goth. *ufar* 'over' *ufarō* 'thereon': Skr. *upāri* 'above'. *πέρδομαι* 'I break wind': OHG. *ferzan* 'to break wind', Lith. *pėrdžiū* 'I break wind', Skr. *pārdatē* 'breaks wind'. *τέρσομαι* 'I become dry': Lat. *torreō* fr. **tors-eiō*, Goth. *ga-pairsa* 'I wither', Skr. *tarša-s* 'thirst'.

τρέω (aor. Hom. *τρέσ-σαι*) 'I flee, tremble' *τρέμω* 'I tremble': Lat. *tremō*, Lith. *trimù* 'I tremble (with cold)' O.Bulg. *tresq* 'I shake', Skr. *trāsami* 'I tremble at, quake'. *ἀγρός* 'field': Lat. *ager*, Goth. *akrs* 'field', Skr. *ájra-s* 'a plain'. *πῦρ* *πῦρ-ός* 'fire': Arm. *hur*, gen. *hroy*, 'fire', Umbr. *pure* 'igne', OHG. *fair fiur* 'fire'. *ἄκωρος* 'powerless, without authority' *κῶρος* 'power': Skr. *śū-ra-* Av. *sū-ra-* 'strong, sublime'.

§ 265. Indg. *l*. *λέχος* n. 'bed' *ἄλοχος* 'bed-mate' (*ἀ-* fr. *ά-*, § 564): Lat. *lectu-s*, O.Ir. *lige* 'bed', Goth. *liga* 'I lie', O.Bulg. *sq-logŭ* adj. 'consors tori'. *κόλωνός* 'hill': Lat. *colli-s* fr. **col-n-i-s*, *ex-cellō*, Ags. *hyll* 'hill', Lith. *kāl-n-a-s* 'mountain' *kelù* 'I raise'. *μείδω* 'I melt, make liquid': OHG. *smelzan* 'to melt, dissolve'. *κλέπτω* 'I steal': Lat. *clepō*, Goth. *hlifa* 'I steal', Pruss. *au-klipts* 'concealed'. *καυλός* 'stalk': Lat. *cau-li-s* 'stalk' *cau-lae* 'holes, openings', Lith. *káu-la-s* 'bone'.

§ 266. Affections of Gr. *ρ* and *λ* (partly proceeding from Indg. *r*, *l*, § 292).

The one liquid was sometimes put in the place of the other by dissimilation, e. g. *κεφαλ-αργία* beside *κεφαλ-αλγία* 'head-ache', to *ἄλγος*, *μορμολύντω* 'I frighten' beside *μός-μορος* 'fear', *θηλητήρ* (Hesych.) beside *θηρητήρ* 'hunter'; or one of the two liquids was dropped, e. g. *φᾱτρία* beside *φρᾱτρία* 'brotherhood, clan', *δρύ-φακτος* fr. *δρύ-φρακτος* 'fence', *ἐκ-παγλος* 'frightful' fr. **ἐκ-πλαγ-λος*, to *ἐκ-πλαγῆναι*; or the first liquid was changed to a nasal, e. g. *γαγγαλίζω* 'I tickle' fr. **γαλγαλιζω* (beside *γαργαλιζω*). Cp. § 282. Probably also by dissimilation Cret. (Gortyn.) *μαίτυρες* fr. *μάρυρες* 'witnesses'; palatal *l* was the intermediate stage between *ρ* and *ι*.

Initial *ρ*, *λ* underwent vowel-prothesis. *ἐρυθρός* 'red': Lat. *ruber*, Skr. *rudhirá-s*. *ὀρύσσω* 'I dig': Lat. *runcō*. *ἐλαφρός* 'nimble': OHG. *lungar*. *ἀλῖναι* 'to spread over, besmear': Lat. *li-nō*, O.Ir. *le-nim* 'I cling to'. Cp. § 626. Ibid. also concerning medial anaptyxis.

The combinations *sr-* and *yr-* became *ῥ-* i. e. voiceless *r*, the former in prim. Gr., the latter in the course of the individual dialects, e. g. *ῥέω* 'I flow' fr. Indg. **srey-ō*, Skr. *srávāmi*, to which

also Corcyr. *ρhofaí* Hom. *ῥοαί* 'streams'; Att. *ῥήτρα* 'a saying' = El. *ῤράτρα*. Cp. §§ 164. 565.

Anteconsonantal *λ* was pronounced *l* in Cret. (Russ. *λσ*), and as such passed into *ϝ*, e. g. *αὐκά*: Ion. *ἀλκή* 'strength', *θεύγω*: Hom. *θέλγω* 'I enchant, cheat' (cp. Lith. § 280).

λ before *τ*, *θ* became *ν* in certain Doric districts, e. g. *φίντατος* 'dearest', *ἦνθον* 'I came'.

Italic.

§ 267. Indg. *r*. Lat. *rē-s*, Umbr. *re-per* 'pro re': Skr. *rā-s* (instr. *rāy-ā*) 'wealth'. Lat. *rēx régis*, Osc. *regaturei* dat. 'rectori', Marruc. *regen*[a dat. 'reginae': Gall. *-rīx* 'king' in *Dumnorīx* etc., O.Ir. *rī* gen. *rīg*, Skr. *rāj-an-* 'king'. Lat. *ferō*, Umbr. *ferar* 'feratur', Volsc. *ferom* 'ferre', Marruc. *ferenter* 'ferentur': Gr. *φέρω*, Skr. *bhārāmi*. Lat. *vertō*, Umbr. *co-vertu* 'convertito', Osc. *ἑρσορεῖ* 'Versori', *ἑρσαίω*: Goth. *vairþan* 'to become', Lith. *veřsti* and *vartýti* 'to turn, direct to' O.Bulg. *vratiti* 'to turn, direct to', Skr. *vārtatē* 'revolves, rolls'. Lat. *serpō*: Gr. *ἔρπω*, Skr. *sārpāmi*, Indg. **sérpō* 'I creep, crawl'. Lat. *termō termen*, Umbr. *termnom-e* 'ad terminum', Osc. *terem-nattens* 'terminaverunt': Gr. *τέρμων* 'boundary' *τέρμα* 'goal', Skr. *tārman-* n. 'point of the offering rod'. Lat. *frīgus*, Umbr. *frehtef* 'refrigerans, frigefaciens': Gr. *ῥίγος* 'frost', prim. f. **srīgos* (§ 570). Lat. *caper capra*, Umbr. *cabriner* gen. 'caprini': Gr. *κάπρο-ς* 'boar', O.Icel. *hafr* 'he-goat'. Lat. *acer acris*, Osc. a krid abl. 'acri': Gr. *ἄκρο-ς* 'point', Lith. *asztrū-s* O.Bulg. *ostrū* 'sharp', Skr. *catur-aśra-* 'four-cornered'.

§ 268. Indg. *l*. Lat. *lūx lūcis*, Osc. Luvkis 'Lucius': Gr. *λευκό-ς* 'white'. Lat. *luō re-luō so-lūtō-s*: Gr. *λῶ* 'I loose', O.Icel. *lýja* 'to crush, shatter', Goth. *láus* 'loose', Skr. *lu-nā-mi* 'I cut, cut down, annihilate'. Lat. *gelu*, Osc. *γελαν* 'pruinam': O.Icel. *kala* 'to freeze' Goth. *kalds* 'cold', O.Bulg. *žlédica* 'snow-rain'. Lat. *sōl*: Gr. *ἥλιος* *ἥλιος* Mid. Cymr. *heul* Corn. *houl* Goth. *sauil* O.Icel. *sōl* Lith. *saulė*, Skr. Ved. *suvar* (gen. *sūr-as*) Av. *hvar* 'sun'. Lat. *flōs flōris*, Osc. *Fluusaí* dat. 'Florae', Sabin. *Flusare* abl. 'Floralí': O.Ir. *bláth* 'blossom' Cymr. *blodau*

'flos', Goth. *blōma* m. 'flower' OHG. *bluot* 'blossom'. Lat. *clūni-s*: Cymr. *clun* 'hip', O.Icel. *hlaun* 'buttock', Lith. *szlauni-s* 'hip, upper part of the thigh', Skr. *śrōṇi-ś* Av. *sraoni-ś* 'buttock, hip' ¹). Lat. *ala* fr. **acslā* (cp. §§ 503. 570): OHG. *ahslu* Ags. *eaxl* O.Icel. *qxl* 'axle', prim. Germ. **axslō*.

§ 269. Latin. Affections of prim. Lat. *r*, *l* (partly arising from Indg. *r*, *l* § 295).

The one liquid was often put in the place of the other by dissimilation: *r* for *l*, e. g. in *caeruleu-s* 'azure' fr. *caelu-m*, suffix *-cro-* in *lucru-m simulācru-m lavācru-m* etc. from *-clo-* (*saeclu-m*), which arose from **-llo-* (§ 367), suffix *-ari-* from *-ali-* in *exemplari-s militāri-s lūnari-s* etc. (cp. *aequali-s nāvali-s* etc.); *l* for *r*, e. g. in vulgar Latin *pelegrīnu-s* (Italian *pellegrino*) fr. *per-egrīnu-s*. *r* was dropped by dissimilation in *prae-stīgiae* beside *prae-strīgiae*, *frāgāre* beside *fragrāre* etc. For a like reason nasal from liquid in *cancer cancrī* fr. **carcro-*: Gr. *καρκίνο-ς* Skr. *karkaṭa-s* 'crab'. Cp. § 282.

r disappeared before *s* + consonant. *com-pescō* 'I constrain' fr. **-per(c)-scō* **par(c)-scō*, to Skr. *parc-* 'to put in connexion'. *poscō* fr. **por(c)-scō*: Skr. *prchāmi* 'I ask', Indg. **prk-skō* from rt. *prek-*. *tostu-s* fr. **tors-tu-s*, to *torreō*. *Māspiter* beside older *Marspiter*. *Tuscu-s* beside Umbr. *Tursco-* *Tusco-*.

ll fr. *rl*. *stella* from **ster-lā*: cp. Gr. *ἀστὴρ* Bret. *sterenn* Goth. *stairnō* 'star'. *agellu-s* fr. **ager-lo-s*, older **agr-lo-s* (§ 633). *paullu-s* fr. **paur-lo-s*: Gr. *παῦρο-ς*.

ss, *s* from *rs* (from *rss*) in *prōssum prōsa quōssum sūsum* etc. = *prōrsum* etc. It is uncertain whether the preceding long vowel was here a co-operating factor. This is not proved by *vorsus morsus* etc., since *r* may here have been restored by levelling (cp. *vortō mordeō*).

1) Gr. *κόρυς* 'coceyx' will also belong to this category, notwithstanding its problematical vocalism. Cp. the author Zum heut. Stand der Sprachwiss. 70 f.

ri, *ro* became *er* through the intermediate stage *r* in *certu-s* = Gr. *κῆρτός*, *ager* = Gr. *ἀγρός* etc. See §§ 33. 623 rem. 1. 633.

Just as *medius* arose from **medjio-s*, and *mortuo-s* from **mortuo-s* (§§ 135. 170), so also postconsonantal *l* became sonantal, and thus arose *-ol-*, *-ul-*, *-il-*. This process seems first to have been effectuated in the archaic period.

pō-culu-m, older *pō-colo-m*, *sae-culu-m*, *piā-culu-m* (Umbr. *piha-klu* 'piaculorum') etc. beside which also *pō-clu-m*, *sae-clu-m* etc. Analogously *-bolo-*, *-bulo-*, *-bili-* fr. *-blo-* (Gr. *-θλο-*), *-bli-*, as *tabola tabula* fr. **tablā* (Umbr. *tafle e* 'in tabula'). *angulu-s* (Umbr. *anglom-e* 'in angulum') fr. **ānclo-s* (§ 499), to *ancu-s uncu-s* and OHG. *angul. populus poplu-s* (Umbr. *poplom* 'populum'). *nōmen-culātor* fr. *nōmen-clātor*. Concerning *coculu-m* and *torculu-s* cp. also § 431 c.

Rem. A similar origin of *er* from *r* seems to me very doubtful in pl. *generi* (cp. Gr. *γαμβροί*), *umeru-s* (cp. Umbr. *onse* 'in umero' Goth. *ams* 'shoulder'), *numeru-s* (cp. Osc. *Niumsiefs* 'Numerii'). See § 568, 3.

§ 270. Umbrian. *r* often remains unwritten before *s*, e. g. *fasiu fasio* beside *farsio* 'farrea', *pesnimu* beside *persnimu* 'precamino'. In like manner the orthography fluctuates with final *r*, e. g. *emantu* beside *emantur* 'emantur', *-pe* beside *-per* 'per, pro'. In these cases *r* must have experienced a weakening.

§ 271. Oscan. *r* and *l* became sonantal before and after consonants, and then arose an anaptyctic vowel. This took the quality of the preceding vowel when the liquid came first in the consonant combination, and that of the following vowel when it did not come first. 1) *aragetud* 'argento', *amiricatud* 'inmercato, non mercato', *Μαμερενίης* 'Mamercius', *teremniss* 'terminibus', *Alafaternum* 'Alfaternorum' to Lat. *albu-s*. 2) *sakarater* 'sacratur' beside *σακρο* 'sacrum' or 'sacra', *pútúrúspíd* nom. 'utrique' beside *pútereí-píd* loc. 'in utroque', *Vestirikiúí* dat. 'Vestricio', *zicolom* 'diem' beside loc. *zikel[ei]* abl. *ziculud*. Beside these however without anaptyxis *altrei* dat. 'alteri', *alttram* 'alteram', *ehtrad* 'extra' etc., see § 627.

Cp. also Pelign. *Alafis* 'Alfius', *Salavatur* 'Salvator', *pristafalacirix* (Lat. **prae-stabulatrīx*) 'antistita', *sacaracirix* (Lat. **sacratrīx*) 'sacrificans' (-cr- fr. -tr-, § 367).

Old Irish.

§ 272. Indg. r. *roth* 'wheel', Gall. *petor-ritum* 'four-wheeled chariot' : Lat. *rota*, OHG. *rad* n. 'wheel', Lith. *rāta-s* 'wheel', Skr. *rātha-s* 'vehicle, war-chariot'. *daur* (gen. *daro*) Cymr. *derwen* 'oak' (to which O.Ir. *druid* Gall. *Druidae* 'druids'?) : Gr. *δόρυ* 'wood, shaft, spear' *δρῦ-ς* 'tree, oak', Goth. *triu* 'tree', Lith. *dervā* 'resinous wood' O.Bulg. *drěvo* 'wood, tree', Skr. *dāru drū-Av. dāuru* n. 'wood'. *orc* 'pig' : Gr. *πόρκο-ς* Lat. *porcu-s* OHG. *farh farah* Lith. *pařsza-s* O.Bulg. *prase*, prim. f. **porko-s* 'pig, sucking-pig'. *brai* Mid. Ir. 'eye-brows' : Gr. *ὀφρῶν-ς* OHG. *brawa* O.Bulg. *brāv-ŕ* Skr. *bhrū-ṣ* 'eye-brow'. *fe-r* 'man' : Lat. *vir* Goth. *vair* Lith. *výra-s* Skr. *vīrá-s*, Indg. **ui-ró-s* and **ūi-ró-s* 'man'. Comparative suffix Indg. -tero- : *air-ther* 'East' (to *ar* 'before, ante') *lērithir* 'more diligent'. Gr. *πό-τερο-ς* 'uter' *ὠμό-τερο-ς* 'rawer', Lat. *i-teru-m*, Skr. *ka-tará-s* 'uter'. *e-ter e-tir* 'between' : Lat. *in-ter*, Skr. *an-tár*.

§ 273. Indg. l. *lōthur* Mid. Bret. *louazr* 'alveus, canalis' Gall. *lautro* 'balneo' : Arm. *log-ana-m* 'I bathe myself', Gr. *λούω* 'I wash' *λουτρό-ν* 'bath', Lat. *lavō lautu-s*. *gel* 'white' : Lat. *helus* (*holus, olus*), *helvo-s*, OHG. *gelo* (infl. *gelawēr*) 'yellow', Lith. *želù* 'I grow green' O.Bulg. *zeliže* n. 'greens, vegetables' *zelenū* 'green', Skr. *hāri-ṣ* Av. *zairi-ṣ* 'yellowish'. *salann* Cymr. *halan* 'salt' : Arm. *al* (gen. *alī*) Gr. *ἄλς* Lat. *sāl salis* Goth. *salt* O.Bulg. *soŕi* 'salt'. *melg* 'milk' : Gr. *ἀμέλγω* 'I milk', OHG. *melchan* 'to milk', Goth. *miluks* 'milk' (§ 628), Lith. *mėlžu* 'I milk', O.Bulg. *mľěsti* 'to milk'. *lār* Cymr. *llawr* 'pavement, floor' : Ags. *flōr* 'house-floor' MHG. *vlur* 'corn-field, ground, soil'.

§ 274. A transposition of vowel + liquid is assumed in *flaith* 'dominion' (Goth. *valdan* 'to rule'), *frass* 'shower of rain' fr. **urastā* (Skr. *varṣā-s* 'rain') and in many other words (Zeuss-Ebel G. C. 168, J. Schmidt Voc. II 370 ff., Windisch Ir. Gramm. § 79). It is unknown to us within what limits this sound-

process is to be acknowledged and by what it has been occasioned.

Rem. A great number of the examples brought forward are to be separated viz. all those cases in which *ri re*, *li le* depend upon Indg. *r*, *l* (§ 298), and those in which the liquid with the accompanying vowel was the continuation of *r*, *l* specially developed in Ir. through *samprasāraṇa*, as *du-fu-tharcair* 'voluit' fr. **du-fū-thŕcair* from *-thracair* (§ 634).

Germanic.

§ 275. Indg. *r*. Goth. *raþjō* 'account', OHG. *redia reda* 'account, a talking over, speech': Lat. *ratio*. OHG. *riozan* Ags. *reótan* 'to complain, weep', OHG. *rōz* 'a weeping, complaining': Lat. *rudō* 'I bray', Lith. *raudà* 'plaint' O.Bulg. *rydaja* 'plaint', Skr. *ruddāmi* 'I lament, weep'. Goth. *ga-tairan* 'to destroy, demolish', OHG. *fir-zeran* Ags. *teran* 'to loosen, destroy': Gr. *δέρω* 'I skin, flay', Lett. *nū-daras* f. pl. 'chips of bark' O.Bulg. *derā* 'I skin', Skr. perf. *dadāra* 'he burst'. Goth. *ga-dars* OHG. *gi-tar* perf. 'I dare, venture': Gr. Aeol. *θέρσος* 'courage', *Θερεττης* *Θέρσεινος* (*θέρσος*; *θάρσος* = *πένθος*; *πάθος*), Skr. *dhārṣāmi* 'I dare, venture'. Goth. *fraihnan* Ags. *friznan* O.Icel. *fregna* 'to ask': Lat. *precor procu-s*, Lith. *prasziyti* O.Bulg. *prosiiti* 'to demand, ask for', Skr. *praś-nā-s* 'a questioning'. Goth. *tag-r* n. OHG. *zuhar* m. 'tear': Gr. *δάκρυ* Lat. *dacruma lacrima* O.Bret. *dacr* O.Ir. *dēr* 'tear'. Nominal suffix Indg. *-tro-*: Goth. *muúr-þr* Ags. *mor-þor* n. 'murder', OHG. *ruo-dar* n. 'oar': cp. Arm. *araur*, gen. *arauroy*, 'plough' (*-ur* = *-tr-*, § 360), Gr. *ἄροτρον* 'plough', Lat. *claus-tru-m* 'inclosure, bolt', Skr. *śrō-tra-m* 'ear'.

§ 276. *l*. Goth. *láu-n* OHG. *lōn* O.Icel. *laun* 'pay, reward': Gr. *ἀπο-λαύω* 'I enjoy' *ληίς* 'booty', Lat. *lucru-m*, *Laverna* 'goddess of thieves', O.Ir. *lō-g luag luach* n. 'pay, reward' (ʔ), O.Bulg. *lov-ŭ* 'hunt, capture'. Goth. *lisan* OHG. *lesan* O.Icel. *lesa* 'gather, collect': Lith. *lèsti* 'to pick up with the beak'. Goth. *viljáu* opt. 'velim' pl. *vileima* 'velimus', inf. *viljan* OHG. *wellan*, OHG. *wala* f. O.Icel. *val* n. 'choice': Lat. *velim velle*, Lith. *vėlyti* 'to wish, grant, advise' O.Bulg. *voliti* 'to be willing', Skr. *va-vāra* perf. 'chose himself, preferred' *vāra-s* 'a wish'. Goth. *valdan* OHG. *waltan* 'to rule,

govern' : Lat. *valeō*, O.Ir. *flaith* f. 'dominion'. Goth. *hlutrs* (ū?) OHG. *hlūtar* 'clear, pure' : Gr. κλύζω 'I wash out, clean' fr. *κλυδ-ζω, κλίδων 'a wave'. OHG. *slingan* 'to entwine, wind, to creep like a serpent', O.Icel. *slyngva slyngja* 'to sling' : Lith. *slenkù* 'I crawl' *slankà* 'creeper', O.Bulg. *slakŭ* 'crooked', rt. *slenq-*. OHG. *nebul* 'fog', O.Icel. *nífl-* in compounds 'darkness' : Gr. νεφέλη, Lat. *nebula*, O.Ir. *nēl*.

§ 277. West Germanic.

Examples of dissimilation. In OHG. *l* from *r*, e. g. in *murmūlōn* *murmūlunga* beside *murmurōn* 'to murmur' *murmurunga* 'a murmuring' : Lat. *murmurāre* 'to murmur, grumble', Gr. μυρμούρειν μορμούρειν 'to murmur, roar, ripple'; in the loan-words *turtul-tūba* fr. Lat. *turtur*, *martela* beside *martera martra* 'torture, rack' *martolōn* beside *martorōn martrōn* 'to torture, rack' fr. Greek-Lat. *martyr martyrium*. Cp. § 282. Dropping of *r*, *l*. OHG. *criskimmōn* beside *criscrimmōn criscrimmōn* 'to gnash the teeth with rage', cp. OS. *gristgrimmo* 'a gnashing of teeth'. It is not so certain that OHG. *bior* Ags. *beór* O.Icel. *bjōrr* 'beer' are related to OHG. *briuwan* 'to brew', Greek-Thrac. βῆρο-ν a kind of beer, Lat. *dē-frūtu-m*; in case they do, the dropping of the root *r* must be ascribed to the prim. Germ. period (*b(r)ey-ra-). Many bring Goth. *fugls* OHG. *fogal* 'bird' together with OHG. *fliogan* 'to fly'; the dissimilatoric disappearance of the *l* would also here be prim. Germ. (*f(l)uz-la-).

In the final syllable of nouns with *r*- and *l*- suffixes, when *r* and *l* followed a spirant or explosive, through the disappearance of the short vowel (§ 635) after the liquid, there arose in West Germ. *ɾ* and *ɭ* out of which a new vowel was developed, in OHG. OS. *a*, Ags. *e*, *o*. Nom. acc. OHG. *acchar* OS. *accar* Ags. *æccer* 'field' = Goth. nom. *akrs* acc. *akr*, Gr. ἀγρός-ς ἀγρό-ν; OHG. *fogal* OS. *fugal* Ags. *fuzol* 'bird' = Goth. nom. *fugls* acc. *fugl*. (It is possible that liquids were also spoken syllabic in Goth., *akrs akr*, *fugls fugl*¹⁾). The anaptyctic vowel in

1) The contrast between *vair stūr* fr. **vairz* **stiurz* and *akrs* speaks for *akrs* (§ 660, 6). But monosyllabic *akrs* may then have arisen from dissyllabic *akrs*.

OHG. forced its way from the final into the medial syllable of these nouns and their derivatives, at first after short syllables, and then later after long also, e. g. *acchares* 'of a field', *fugalōn* 'to catch birds' (cp. Sievers in Paul-Braune's Beitr. V 90 ff.). Here must further be mentioned the development of a vowel between liquids and *h* which spreads throughout the whole extent of OHG., and in which OS. also to a certain extent shared, e. g. OHG. OS. *ferah* 'soul, life' : Goth. *faírhu-s* 'world'; OHG. OS. *bi-felahan* 'to hide, bury' : Goth. *filhan*. Anaptyxis is also found between *r* and guttural and labial consonants especially in Oberdeutsch (Upper German), e. g. *purag* *puruc* beside *burg* 'citadel, city' : Goth. *baúrgs*; *peragan* beside *bergan* 'to conceal' : Goth. *baírgan*; *arapeit* beside *arbeit* 'work, toil' : Goth. *arbáips*; *aram* beside *arm* 'arm' : Goth. *arms*. The vowels thus developed frequently become assimilated to some vowel in their vicinity, e. g. *hungirita* 'hungered' to *hungar* 'hunger'; *fingirīn* 'finger-ring' to *fingar* 'finger'; *wuntorōn* beside *wuntarōn* 'to wonder at'; *puruc* beside *purag* 'city'; *piricha* = *pircha bircha* 'birch-tree' : Lith. *bérža-s*.

Rem. 1. In these cases it is partly a question of a prim. Germ. *r* and *l*, which depended upon Indg. *r*, *l*, e. g. the orig. *f*. of OHG. *burg* Goth. *baúrgs* must be put down as **bhrg̃h-*, s. § 299.

Rem. 2. Cp. the anaptyxis with *w* § 180, and nasals § 215.

l became geminated in West Germ. before *i*, e. g. OHG. *willio willo* OS. *willio* Ags. *willa* 'wish, desire' : Goth. *vīlja*, rt. *uel-*. See § 143 p. 129. Cp. the similar gemination of nasals § 216 and spirants and explosives (§§ 529. 531. 535. 540).

Baltic-Slavonic.

§ 278. Indg. *r*. Lith. *rúgiu ráugėju* O.Bulg. *rygaja* 'I have eructation, belch' : *ἐρεΰγομαι* 'I disgorge', Lat. *ē-rūgō* 'I vomit forth', OHG. *it-ruchen* 'to chew over' Ags. *roccettan* 'to spit out'. Lith. *pūrai* pl. 'winter-wheat', O.Bulg. *pyro* n. 'spelt' : Gr. *πῦρό-ς* 'wheat'. Lith. *kertù* 'I hew', O.Bulg. *črěsti* 'to cut' : Skr. *kártana-m* 'a cutting'. Lith. *barzdà* O.Bulg. *brada* 'beard' :

Lat. *barba* OHG. *bart* 'beard'. Lith. *kraūja-s* 'blood' *krūvina-s* 'bloody', O.Bulg. *krŭp-ŭ* 'blood' *krŭvīnū* 'bloody' : Gr. *κρέας* 'flesh', Lat. *cruor*, O.Ir. *crū* 'blood', OHG. *rō* (infl. *rawēr*) O.Icel. *hrār* 'raw, uncooked', Gr. *kravya-m* *kraviš-* 'raw meat'. Lith. *bėbru-s* and *bėbru-s* O.Bulg. *bebrŭ* 'beaver' : Lat. *fiber* O.Corn. *befer* (to which Gall. *Bibr-ax*) OHG. *bibar* 'beaver', Skr. *babhrú-š* adj. 'brown', as subst. a kind of great ichneumon, Indg. **bhebhru-s*.

§ 279. Indg. *l*. Lith. *lōju* 'I bark', O.Bulg. *laja* 'I bark, scold' : Gr. *λῆ-ρο-ς* 'idle talk', Lat. *lu-trāre* 'to bark', Goth. *lat-lōun* 'they reviled' Skr. *rāya-ti* 'barks, barks at'. Lith. *pelė* 'mouse' *pālsza-s* 'faded', O.Bulg. *plavŭ* 'whitish' *pelesŭ* 'gray' : Gr. *πελιό-ς* *πελιδνό-ς* *πελλό-ς* 'colourless, gray, pale', *πολιό-ς* 'gray, hoary', OHG. *falo* (infl. *fulawēr*) 'pale, faded', Skr. *palitá-s* 'gray'. Pruss. *dalpta-n* a smith's tool for drilling holes, O.Bulg. *dlato* n. 'chisel' : OHG. *delban* Ags. *delfan* 'to dig'. Lith. *blendžiū-s* 'I darken myself' (of the sun) *prý-blindė* 'evening twilight', O.Bulg. *blęda* 'I err' : Goth. *blinds* 'blind' *blandan sik* 'to intermingle'. Lith. *mig-là* and *myg-là* (also *myglà* and *myglė*) O.Bulg. *mǫg-la* 'fog' : Gr. Hom. *μίχ-λη* (Skr. *mihirá-* 'cloud', s. § 287).

§ 280. Lithuanian.

The difference between *l* (hard) and *l* (soft) is sharper than elsewhere in the south-eastern districts ^{vald.} bordering on those where Slav. is spoken; in some parts of the former territory, e. g. in Godlewa (Govern. Suwalki), antecorsonantal *al* sounds almost like the diphthong *au*, e. g. in *málka* 'fire-wood', cp. Cret. *αῦκά* = *ἀλκά* § 266 ¹⁾). Following palatal vowels then also occasion a softened pronunciation of the liquid, when they are separated from it by one or more consonants (the separating consonants are also thus softened); hence e. g. nom. sg. *tilla-s* ('bridge'), but loc. *tille*.

Rem. The East Lith. dialect of Szyrwid († 1631) not only shows *l* before *a*, *o*, *u*, but also before *e* and *é*, e. g. *slepiu* 'I conceal', *saulé* 'sun'. Garbe, Lit. u. lett. Drucke des 16. u. 17. Jahrh. IV p. XXXIV sqq.

1) Cp. also Polab. *vāuk* 'wolf', *vāuno* 'wool' = Slov. *volk*, *volna*; French *haut* = Lat. *altus*; Du. *woud* = Mod.HG. *wald*, Swiss-Alem. (Bero-

Dissimilation. *katruļ* 'in what direction? whither?' fr. **katruř*, cp. *kuř*, *kituř*. The ending of the so-called verba punctiva *-eriu* (1. sg. pres.) became in East Lith. (also in Lett.) *-eliu* when preceded by *r*, e. g. *bárkszteliu* fr. *bárkszteriu* 'I knock a little' (then by analogy also *stúkteliu* 'I beat a little' for *stúkteriu* etc.). *purpulīnis* 'purple' from and beside *purpurīnis*. Analogously Lett. *skrōdelis* 'tailor' fr. *skrōderis*. Cp. § 282.

§ 281. Slavonic.

-tel-ř, the suffix of nomina agentis, opposed to *-ter-* *-tor-* etc. of other languages (e. g. *da-tel-ř* 'giver': Gr. voc. σῶ-τερ nom. δατή-τεῖρα acc. δώ-τορ-α, Lat. *da-tor*, Skr. *da-tar-*) seems to have come by its *l* through dissimilation, and to have arisen regularly in forms like *žrī-telī* 'sacrificer' *ora-telī* 'arator' *ori-telī* 'destroyer'. Cp. § 282.

Rem. 1. It seems to me improbable that the Lith. fem. *-klė* belongs directly here, i. e. to feminines like Gr. ψάλ-τεῖα Lat. *vic-trī-x* Skr. *dū-trī* (J. Schmidt Kuhn's Ztschr. XXV 29). I connect it with *-kla-* = Lat. *-clo-* from **-tlo-*.

Prim. Slav. interconsonantal *-or-* *-ol-* and *-er-* *-el-* appear in O.Bulg. as *-ra-* *-la-* and *-rě-* *-lě-*. *prasę* 'sucking-pig': Lith. *pařsa-s*, Lat. *porcu-s*. *braida* 'beard': Lith. *barzdà*, Lat. *barba*, OHG. *bart*. *vlakū* 'draught' in *oblakū* 'cloud' from **ob-vlakū* (properly 'a veiling cover'): Lith. *úž-valka-s* 'a cover', Gr. ὀλκός. *brěza* 'birch-tree': Lith. *bérža-s*, OHG. *pircha*. *vľěka* 'I draw': Lith. *velkū*, Gr. ἔλκω. Corresponding to this mode of treatment, initially, e. g. *ralo* 'plough' fr. **or-dlo* (*-dlo-* = Gr. *-θλο-*): cp. Lith. *ár-kla-s* 'plough' (*-kla-* = Lat. *-clo-* from **-tlo-*); *ra-tajř* 'husbandman': Lith. *ar-tóji-s*; but *alkati* beside *lakati* 'to hunger': Lith. *álkti* 'to hunger'.

Rem. 2. In the treatment of *o*, *e* + liquid between consonants the Slav. languages took various directions: O.Bulg. *prasę* Serv. *práse* Czech *prase* — Polish *prosię* Upper Sorab. *proso* Lower Sorab. *prose* — Russ. *porosjá*. Perfect agreement only exists in a few words initially, e. g. O.Bulg. *ralo* = Serv. Slov. Russ. *ralo* Czech *rádlo* Pol. Upper Sorab. Low, Sorab. *radlo*. The investigations hitherto made concerning these phenomena

Münster; s. Brandstetter Die Zischl. der Mundart von B.-M. 1883 p. 12) *fergauštere* = *vergästern*.

(cp. especially J. Schmidt Vocal. II 66 ff., Leskien Declin. p. XVI ff., Arch. f. slav. Phil. III 86 ff.) have not yet led to a solution of the question, what the change was, which the pre-Slavonic forms first underwent in prim. Slav. and what formed the last previous stage for all the individual dialectical formations. For the position between consonants it seems to me most probable that *or ol, er el* first of all became *ro lo, re le*, e. g. **porse* became **prose*. It is highly probable that the initial differences, which cannot be here brought forward in detail, represent sentence-doublings.

Rem. 3. The abandoning of the forms **porse* **volkū* is connected with a characteristic of the whole prim. Slav. history of sounds, which may here be disposed of¹). The Slav sought to restore everywhere an open syllable (ending in a sonant). Compare besides the sound-change here in question, which in the first instance is supported by the change of **zrno* to **zrino* etc. (§ 302), the development of nasal vowels from vow. + nas. before consonants, e. g. *sretū* 'holy' fr. **srentū*, § 219; the simplifying of consonant groups, as e. g. *nelijī* 'nephew' fr. **neplijī*, *sānū* 'sleep' fr. **sāpmū*, § 545; the dropping of final consonants, as *nebo* 'sky' fr. **nebos*, § 665, 4. A similar phenomenon exists in French. The tendency prevails also here to make all syllables open, the reason of which is here due to the weak expiratory accentuation (Ph. Kaufmann Die Gesch. des consonantischen Auslauts im Franz., Lahr 1886). Nothing prevents our accepting a like reason for Slavonic.

Changes of liquids in the prim. Indg. period.

§ 282. The beginning of the processes of dissimilation, referred to in §§ 259. 266. 269. 277. 280. 281, probably goes back to the prim. Indg. period.

Already at this period e. g. an original *ger-ger-* (or with other vowel-grade, e. g. *ger-gr-*) 'to gargle, swallow, gulp down' may have become *ger-gel-* by dissimilation or an orig. *gel-gel-* (*gel-gl-*) have become *ger-gel-* (cp. Lat. *gurguliō*, OHG. *querechela* 'gullet, windpipe', Lith. *gargalū'ju* 'I gargle, rattle in the throat'; the latter may of course be a loan-word from German, Mod.HG. *gurgel* is borrowed from Lat.²). A satis-

1) My attention was drawn to it many years ago by Rob. Scholvin, but I do not know whether it has been observed elsewhere.

2) Forms like Gr. γέγγερος βρόγχος (Hesych.), γαργαρέων 'uvula' do not stand in the way of this theory. For firstly dissimilation need not have been extended to all the derivatives of reduplicated roots, and secondly, the original equality may have been restored again partly by assimilation and partly by form-association.

factory explanation is thus arrived at for a number of roots ending in a liquid, and often having full reduplication, which also show now *r*, now *l* unreduplicated finally (cp. e. g. Lat. *vorāre* and *gula*). It would be worth while to investigate more fully whether the nominal suffixes *-tro-* and *-tlo-*, beside *-dhro-* and *-dhlo-* are due to dissimilation.

In like manner the substitution of a nasal for a liquid by dissimilation might have had its beginning in the prim. Indg. period, cp. e. g. Skr. *bam-bhara-s* 'bee', Gr. *πυμ-φρηδών* a kind of wasp, cp. the author Curtius' Stud. VII 329. 357 f.

B. LIQUIDS AS SONANTS.¹⁾

§ 283. The question, how many different, and what liquids were spoken in the Indg. prim. period (§ 254), equally concerns both sonant and consonant liquids. As sonants we represent them by *l̥* and *r̥*, and as consonants by *l* and *r*.

Sonantal liquids like syllabic nasals were spoken both long and short in the Indg. prim. period (§ 222), but mostly short, and from a morphological point of view they corresponded, when long, just as long sonantal nasals, to *ī* and *ū*, see § 312.

1. Short sonant liquids.

§ 284. Owing to the treatment in the developments of the individual languages we distinguish three cases.

1. Before explosives, spirants, nasals, *u* and finally, e. g. **mr-tó-s* part. fr. root *mer-* 'die', Skr. *mr-tá-s*; **oudhr* nom. acc. neut. 'udder', Gr. *οὔθαρ*.

2. Before *i*, e. g. **mr-îé-* pres. st. from root *mer-* 'die', Lat. *mor-ior*.

3. Before sonants in which case *r* and *l* were spoken as glides, e. g. **grr-ú-s* 'heavy', Skr. *gurú-ṣ*. Cp. § 223, 4.

1) Cp. the literature quoted in the foot note to p. 190. To the proofs that sonant liquids were spoken in the Indg. prim. period, we add § 285 rem. a new, and as it seems to us, indisputable one.

The following is a survey of the usual representation of *ɣ* in the individual languages arranged from these three points of view. (The treatment of *ʃ* is analogous).

	Skr.	Av.	Arm.	Greek.	Ital.	Kelt.	Germ.	Balt.	Slav.
1.	<i>ɣ</i>	<i>er</i>	<i>ar</i>	<i>εα, αε</i> (initially and abso- lutely finally only <i>αε</i>)	<i>or</i>	<i>ri</i>	<i>ru, ur</i>	<i>ir</i>	<i>rĭ</i>
2.	<i>ur, ir</i>	<i>er</i>	<i>ar?</i>	<i>αε</i>	<i>or</i>	<i>?</i>	<i>ur</i>	<i>ir</i>	<i>ir</i>
3.	<i>ur, ir</i>	<i>ar</i>	<i>ar</i>	<i>αε</i>	<i>or</i>	<i>ar</i>	<i>ur</i>	<i>ir</i>	<i>ir</i>

Prim. Indg. period.

§ 285. 1. Before explosives, spirants, nasals, *u* and finally.

**mɣ-ti-s* 'dying, death' from rt. *mer-* : Lat. *mors mortis*, Lith. *mirti-s* O.Bulg. *sŭ-mrĭti*, Skr. *mṛti-ṣ*; **mɣ-tó-* part. from the same root (neut. as abstract noun) : OHG. *mord* Ags. O.Icel. *mord* n. 'murder', Skr. *mṛtá-s* 'dead' *mṛtá-m* 'death'. **bhɣ-ti-s* 'a bearing, bringing' : Lat. *fors forte*, O.Ir. *brith* 'a bearing', Goth. *ga-baurþs* OHG. *gi-burt* 'birth', Skr. *bhṛti-ṣ* 'a bearing, nursing, maintenance'. Tense stem **dɣk-é-* from rt. *derk-* 'see' : Gr. *ἐδραξε δραχών*, Skr. *ádṛṣa-t dṛṣá-nt-*. **uɣt-tó-* part. from root *uert-* 'turn, direct to' : Lat. *vorsu-s*, O.Bulg. *vrĭsta* f. 'state, condition', Skr. *vyttá-s* part., *vyttá-m* subst. 'state, situation'. **qetɣ-to-s* 'fourth', to **qetɣer-* 'four' : Gr. *τέταρο-ς τέτατρο-ς*, Lith. *ketviŕta-s* O.Bulg. *četrŕitŭ*. **pɔ-tɣ-* **bhrá-tɣ-* antec consonantal weak forms of the stems **pótér-* 'father' **bhrá-tor-* 'brother' : Gr. dat. plur. *πατρά-σι*, Goth. dat. pl. *fadru-m*, Skr. loc. pl. *pitṛ-ṣu*; Skr. *bhrātṛ-putra-* 'brother's son', Goth. *brōþru-lubō* 'brotherly love' (the latter may also like the nom. pl. *brōþrjus* be a new formation).

**uʃgo-s* 'wolf' from rt. *uɛlɣ-* 'drag, tear along'. Arm. *gail*, Goth. *vulfs*, Lith. *vilka-s* O.Bulg. *vlŭkŭ*, Skr. *vṛka-s*. Weak

present st. form **pi-pl-* from rt. *pel-* 'fill' : Gr. *ἐμ-πίπλα-μεν*, Skr. *pipṛ-más*; part. **pl-nó-s* 'filled, full' from the same root : Goth. *fulls* (fr. prim. Germ. **ful-na-z*, § 214 p. 181), Lith. *pilna-s* O.Bulg. *plünū*, Av. *per^ena-*.

Rem. In the same manner as suffix nasals forced their way into the interior of the root syllable, when this contained an *i* or *u*, e. g. **junəg-* (Skr. *yunjātē*, Lat. *jungō*, Lith. *jàngiu*) fr. **jug-n-* (s. § 221), so also when the root contained *r* or *l* as sonant. E. g. Skr. *kṛntāmi* 'I cut' *kṛntā-tra-m* 'chip, refuse', Lith. *krintiū* 'I fall off' (of leaves, fruit etc.), rt. *qert-*. Lith. *drįs-* in *drįs-ti* 'to become courageous, venture' fr. *dhṛns-* (cp. Skr. *dhṛṣṇú-ś* 'courageous'), rt. *dhers-*. O.Bulg. *krēt-* in *krētajā* 'flecto' *krēnā* 'deflecto' (fr. **krēt-na*, § 545) fr. **qrnt-* (cp. Skr. *kṛnāt-ti* 'twists thread, spins'), rt. *qert-*. Goth. *eruggō* f. 'snare' fr. **qrñgh-* from root *qrgh-* (OHG. *icurgēn* 'to strangle' MHG. *er-icergēn* 'to strangle', Lith. *verziū* 'I string together, straiten'). O.Ir. *lingim* 'I leap' (cp. perf. 3. sg. *le-blaing* for **fe-blaing* after the initial sound of the pres. form) fr. **qlæg-*, to Skr. *vālgāmi* 'I leap' (§ 173), is uncertain. And in a similar manner, as e. g. in Lat. the nasal extended itself from the pres. *jungō* to other forms belonging to the same root (*jūntu-s*, *con-junx* etc.), there was formed in Lith. after *drįs-* a pres. *drįsū* (cp. *męžū* 'I make water' for *minžu* in Bezenberger's Beitr. zur Gesch. der lit. Spr. 41, after the ratio of *renkū* : *rinkaū* etc.) and a fem. subst. *drąsė* 'boldness'; in Slav. after *krēt-* an adj. *kratū* 'tortus'; in Germ. after *qrnæg-* a pres. **qrinægō* (Ags. *wrinzan* 'to turn, press' OHG. *ringen* MHG. *ringen* 'to move to and fro, wind with exertion') and an adj. **qrænəg-a-z* (O.Icel. *rangr* 'crooked, wrong' M.Eng. *wrang* Mod.Eng. *wrong*); in Ir. after **qlinæg-* the perf. *le-blaing* (s. above), whereas Lith. *krintiū*, placed on a line with *limpiū* etc., gave the impetus for the formation of *kritaū* *krišiu* etc. These nasalised forms of roots in liquid + consonant in the European languages furnish the best proof of the existence of sonant liquids in prehistoric times. For the suffix nasal can only have been forced over by a root form like *dhṛs-*, not by one like *dhers-* and *dhors-*, since forms like *dherns-* or *dhorns-* are unheard of (just as beside *junəg-* there appears no *jeunəg-* or *jounəg-*).

Final *r*, *l*. Skr. nom. acc. neut. *sthā-tṛ* 'standing', beside which *sthā-tūr* (Lanman Noun-inflection p. 422) as representative of original **sta-tṛr* i. e. of a form originally only used before initial sonants, see § 287; *sthatṛ* : *sthatūr* = *dāśa* 'ten' : *pādam* 'pedem' (§ 231 rem.). Gr. *οὐθ-αρ* 'udder' *ἥπ-αρ* 'liver' fr. **-r*, beside which *ὕδ-ωρ* 'water' probably fr. **-r̄*. Lat. *jec-ur* *fem-ur* fr. **-or* = **-r*, beside which *ūb-er*, whose *-er* can be explained from **-ar* **-r̄*. *-r* : *r̄* = *-u* : *-ū* (in Skr. *purú* Gr. *πολύ* : Skr. *purū* Lat. *cornū*). Armen. *albeur* (gen. *alber*) 'source, spring'

fr. **albey(a)r* (§§ 263. 651), Gr. *φρέαρ* 'a well' fr. **φρηφαρ*. Cp. § 306 and the accidence.

Gr. particle *ἄρ* indicating a natural sequence etc., Lith. *iř* 'and, also' fr. **r*. The form *ῥά* was probably developed before forms beginning with a consonant. *ἄρα* and Cypr. *ῥ(α)* fr. *ῥά* by prothesis (§ 266)? Cp. the author Ber. d. sächs. Ges. d. Wissensch. 1883 p. 37 ff.

§ 286. 2. Before *i*. **mṛ-ṛé-* pres. stem from rt. *mer-* 'die': Lat. *mór-ior*, Av. *mer°-yēmi*. **spṛ-ṛé-* pres. fr. root *sper-*: Gr. *σπαίρω ὑσπαίρω* 'I struggle convulsively', Lith. *spiriù* 'I push with the foot'. **sqṛ-ṛé-* pres. from rt. *sqel-*: Gr. *σκάλλω* 'I stir up, hoe', Lith. *skilù* 'I strike fire'.

§ 287. 3. Before sonants with a following *r*, *l* as glide. **gṛr-ús* 'heavy': Gr. *βαρ-ύς*, Goth. *kaúr-u-s*, Skr. *gur-ú-ṣ*. **gṛr-é-* pres. st. from *ger-* 'devour': O.Bulg. *žir-a*, Skr. *gir-āmi gil-āmi*, with change of accent *girāmi* (Atharvaveda VI 135, 3). Nominal suffix *-ṛro-* beside *-ro-*, like *-iṛo-* beside *-io-* (§ 120) and *-ṛno-* beside *-no-* (§ 227), e. g. **is-ṛró-s*: Gr. Corcyr. *ιαρός*-ς Bæot. etc. *ιαρός* (Hom. Att. *ιερός*-ς, formed after the analogy of *διερός*-ς *φοβερός*-ς etc.) 'active, fresh, strong, holy', Skr. *iṣ-irás* 'hastily, active, fresh' beside Hom. *ίρός*-ς Lesb. *ίρο*-ς fr. **iṣ-ro*-ς (cp. Osthoff Morph. Unt. IV 149 ff., Zur Gesch. d. Perf. 439); Skr. *rudh-irás* 'red' beside Gr. *ῥυθρός*-ς; Gr. *ἰθαρός*-ς 'clear, serene' beside Skr. *ṛdh-r-īya-* 'belonging to the clear sky'; Gr. *ὑδ-αρός*-ς 'watery' beside *ἄν-υδ-ρο*-ς 'waterless'; *σιν-αρός*-ς beside *σινδ-ρός*-ς (for the *-δ-* see § 204 p. 170) 'injurious'; cp. also Skr. *mih-irás* 'cloud' beside Hom. *μίχ-λη* O.Bulg. *mǫg-la* 'fog' (§ 279). Root form *tṛl-* beside *tel-*: Gr. *τάλ-α*-ς 'enduring', O.Lat. *tulō* 'I endure', Goth. *þuláiþ* 'endures', O.Bulg. *tǫl-o* 'bottom' (properly 'surface', cp. Skr. *tal-a-s* 'surface, bottom'), Skr. *tul-ā-* 'balance' *tul-aya-ti* 'he raises up'.

Aryan.

§ 288. 1. Indg. *r* (*l*) = Skr. *r*, Av. *er* (*ehr* before *k* and *p*, and *eř* fr. **ert* in chief accented syllables, in other cases

before consonants *er*^e, see § 260), O.Pers. *ar*; the pronunciation of this O.Pers. *ar* must still have been different from that of *ar* = prim. Ar. *ar* (e. g. inf. *cartanaiy* 'to make'); it was perhaps *r* (cp. Hübschmann Kuhn's Zeitschr. XXVII 108 ff.).

Skr. *pr̥chāmi* Av. *per'sāmi* 'I ask', O.Pers. *aparsam* 'I asked' (= Skr. *áp̥rcham*) : Lat. *poscō* fr. **por(c)-scō*, Indg. **pr̥k-skō*; Skr. *pr̥chā-* 'question, inquiry' : OHG. *forsca* 'investigation, question', Indg. **pr̥k-skā-* f., from rt. *pr̥k-*. Skr. *kṛ-tā-* Av. *ker'-ta-* O.Pers. *kar-ta-* 'made', part. from rt. *ger-*. Skr. *dhṛṣ-ṇō-mi* Av. *der's-nao-mi* 'I dare, venture', O.Pers. *a-darš-nau-š* 'he dared'; Skr. *dhṛṣ-ā-nt-* part. 'courageous' : Goth. *ga-dairsan* 'to dare, venture', Gr. *θρασύ-ς θαρρύ-ς* 'courageous', from rt. *dhers-*. Skr. *mṛ-tā-* 'dead' Av. *mer'ta-*, Skr. *a-mṛta-* 'immortal' Av. *a-meša-* : OHG. *mord* 'murder', Indg. **mṛ-tō-*, from rt. *mer-*. Skr. *bṛh-ānt-* Av. *ber'z-ant-* 'great, high' from rt. *bhergh-*; the same root-form *bṛgh-* in Gall. *brigi-* (in *Brigiani*, *Are-brigium* etc.) O.Ir. *bri* gen. *breg* 'mountain'. Skr. *kṛp-* 'form, appearance', Av. *kehrp-* 'form, body' : Lat. *corp-us*. Skr. *ṛkṣa-s* Av. *er'xšō* 'bear' : Arm. *arj*, Gr. *ἄρκτο-ς*, Lat. *ursus* fr. **orcsō-s*. Dat. pl. Skr. *pitṛ-bhyas* Av. *pter'-byō* 'patribus' : cp. Gr. *πατρά-σι*, Goth. *fadru-m*.

Skr. *pr̥thú-š* Av. *per'pu-š* 'broad', Gr. *πλατύ-ς* : O.Ir. *lethan* O.Cymr. *litan*, probably also OS. *folda* O.Icel. *fold* 'earth' (cp. Skr. *pr̥thvī pr̥thivī* 'earth')¹⁾. Skr. *vṛka-s* 'wolf' Av. *vehrkō* 'wolf' : Goth. *vulfs*, Lith. *vilka-s*.

For Skr. *kṛp-tā-* Av. *ker'p-ta-* 'put in order, fixed', there is no certain corresponding form in the other languages.

On Skr. final *-r* = Indg. *-r*, see § 285.

From pre-Aryan gen. sg. **bhrā-tṛ-s* 'brother's' arose *-tṛš* (§ 556, 1), Skr. *-tṛr* before voiced sounds (cp. *-ir -ur* fr. *-iṣ -uṣ*, § 647, 6), hence by § 290 *-tur*, *bhrādtur*. The same formation is shown by Av. *ner's* from *nar-* 'man'. See the accidence.

Owing to the limited extent of the monuments, it is impossible to arrive at anything definite regarding O.Pers. *u*

1) Lith. *platù-s* 'broad' does not belong here, it has the same vowel-grade as *brangùs* 'dear', *baugùs* 'dreadful' etc.

(written *ū*) = *r* in *a-kū-nav-am* = Skr. *á-kṛ-ṇav-am* 'I made' etc. (beside *kar-ta-* = Skr. *kṛ-tá-* 'made'). Cp. Bartholomae Ar. Forsch. II 67 f.

§ 289. 2. Indg. *r* before *i* seems to have been represented in Av. from the oldest period onwards, in the same manner as before other consonants: *mer^eyēiti* like Lat. *morior*, Indg. **mṛ-īē-tai* 'dies'; *ker^eyēṭē* 'is made, effected'. The Skr. forms *mriyātē kriyātē* are, as we have seen § 120 p. 112, of a different nature. O.Pers. *amariyātā* 'he died' may be *amaryātā* (s. § 125 p. 116), and would then correspond to Av. *mer^eyēiti*; but it may also, according to the O.Pers. mode of writing, be read *amriyātā*, in which case it would be equal to Skr. *āmriyāta*.

ry does not seem to occur in initial syllables in Sanskrit. Optative (precativ) forms as *kriyāt kriyāṣma* from *kar-* 'make', as well as *jāgriyāt* (Āit. Brāhm.) opt. of *jāgarmi* 'I watch' are to be judged of in the same manner as *mriyātē*. Forms like *jūryati* 'becomes feeble' from rt. *ḡer-*, *tīryati* (*ava-tīryati* 'descends') from rt. *ter-* go back to original *ṛi* (s. § 306), and are on a level with *mī-ya-tē* 'disappears' from rt. *mei-* 'lessen', *śrū-ya-tē* 'is heard' from rt. *kle-* etc. As regular representatives of Indg. *ri*, there can only be taken into account on the one hand *jāgryāt* (beside *jāgriyāt*) — how many such forms are extant? — and on the other, forms like opt. *kuryāt* from *kar-* 'make', *turyāt tuturyāt* from *tar-* 'to press through', *a-juryā-s* 'not becoming old' from rt. *ḡer-* (the author Kuhn's Ztschr. XXIV 282 ff.). I am inclined to think that the latter category exhibits the regular development (except that *ur* took the place of *ir*, s. § 290) and that forms like *jāgryāt* were later new formations (after *jāgṛhi* etc.).

Rem. This view might be put forth with greater certainty, if the possibility did not exist that the *ur* of *kuryā-* was taken over from the weak stem of the opt. **kurī-* (3. sg. mid. **kurī-tā*) = Indg. **qrī-* (§ 290).

§ 290. 3. Skr. *ur ir*, Av. O.Pers. *ar* (concerning Av. or fr. *ar* see § 94).

Skr. *purī-* Av. *parao-* *pouru-* O.Pers. *paru-* 'much', prim. f. **plū-* from rt. *pel-* 'fill'. Skr. *giri-* § Av. *gairi-* 'moun-

tain' : cp. Lith. *gìria gìre* f. 'forest'. Skr. *gurú-* 'heavy, vehement, hard', Av. *gouru-* 'contrary, peevish' : Gr. *παρύ-*s, Goth. *kairu-*s. Gen. abl. sg. Skr. *gir-ás* Av. *gar-ō* 'of a song' (instr. pl. Skr. *gīrbhiṣ* fr. **gṛ-bhis*, § 306). Skr. *tirás* Av. *tarō* 'through, over', from root *ter-* 'press through, overstep'. Skr. *gīrdmi* 'I swallow' : O.Bulg. *žīra*, from rt. *ger-*; in like manner Skr. *tīrdmi* 'I press through', *kīrdmi* 'I pour out', *sphurdmi* 'I push away' etc.; *tīrdmi* : *tārāmi* = *vāndmi* : *vānāmi* (§ 231) = *huvātē* : *hāvātē* 'invokes'. It cannot be decided whether Av. *sparāmi* 'I push, jerk' is the same as Skr. *sphurdmi* or a new formation after Skr. class I.

Finally. Skr. *-ūr* Av. *-ar^e*, the ending of the 3. pl. pf. act., e. g. Skr. *ās-ūr* Av. *ānāh-ar^e* from rt. *es-* 'be'. These forms are on a level with the nom. acc. neut. *sthā-tūr* § 285 p. 228.

The change between *ur* and *ir* in Skr. was very probably originally evoked by the varying timbre of the neighbouring sounds. Preceding or following labials developed the form *ur*; cp. *sphurāti*; Skr. *úraṇa-s* 'ram' fr. **ur-an-a-s* (§ 157), **ur-an-* (cp. Arm. *garin*, gen. *garin*, § 291) beside Gr. *φαρ-v-* fr. **ur-n-* (§§ 164. 292); *gur-ú-* (opposed to *gir-í-*) etc. The orig. phonetic state became obscured through a great number of new formations made by analogy.

Rem. The present of *kar-* plays a principal part in the question as to how Skr. *ur* and *ir* are to be explained. It may be remarked that I trace the Ved. imperat. *kuru-* back to **qr+u*; *-u* was an appended particle like *-dhi* in *i-hi* Gr. *ἵ-θι* 'go' (Thurneysen Kuhn's Ztschr. XXVII 180). After the relation of *bhara* : *bharata*, there was formed to *kuru* the 2. pl. *kuruta*, in the indic. *kurutha*. For the rest see the accidence.

The side by side existence of Skr. *gurú-* Av. *gouru-* and Skr. *á-gru-* Av. *a-yru-* 'maidenish' (cp. Skr. *gurvī* 'gravida')¹⁾, of Skr. *gir-a-* *-gil-a-* 'swallowing' and *tuvi-grá-* 'swallowing much' etc., corresponds to that of *ghan-á-* and *-ghn-á-* 'killing' (§ 231).

Armenian.

§ 291. 1. *barjr*, gen. *barju*, 'high' fr. **bhr̥gh-u-* : Skr. *bṛh-ánt-*, O.Ir. *bri* (§§ 288. 298). *harç*, gen. *harçi*, 'question',

1) Here come probably also Lat. *gravi-s* as *gr-av-i-s*, cp. Gr. *ταυ-α(ρ)-ό-*s beside *ταυ-ό-* 'stretched' and Skr. *pr̥th-iv-ī* beside *pr̥th-ú-* (p. 230).

harçane-m 'I ask' with *ç* fr. (*k*)*sĕ* : Skr. *prcha*, OHG. *forsca* (§ 288). *mard* 'man' : Skr. *mṛtá-s*. *arġ*, gen. *arjoy* or *arju*, 'a bear' : Skr. *ṛkṣa-s*. *ard-ar* 'just, upright' : Skr. *r-tá-s* 'suitable, right'. *arciv* and *arcui* 'eagle' (*v* fr. *p*, §§ 330. 483) : Skr. *rġipyá-* 'stretching oneself, taking up in flight' (of birds of prey), Av. *er^hzifya-* 'stretching oneself; falcon'. *kař-* 'four' (*kař-a-sun* 'forty') fr. **(q)tuř-* (§ 360) = Gr. *τρα-* in *τρά-πεζα* 'table' (properly 'fourfeet').

Finally : *albeur* 'source' fr. **albeu(a)r* § 285.

gail, gen. *gailoy*, 'wolf', firstly by epenthesis fr. **galio-s* = Skr. *vřka-s* etc.? Cp. § 455.

2. Examples for *ři*, *ři* are not to hand.

3. *garñ*, gen. *garin*, 'lamb', Indg. st. **uřr-en-* : Skr. *úr-an-a-s* fr. **mur-* (§§ 263. 290). *sar*, gen. *saroy*, 'height, summit, declivity' : Skr. *śiras-* Av. *sarah-* n. 'head', rt. *ker-* (Lat. *cerebru-m cernuo-s*, O.Icel. *hjarse* 'crown of the head'). *kalin*, gen. *kalnoy*, 'acorn' : Gr. *βάλ-ανο-ς*, Lith. *gĩl-ė* (Lat. *glans* seems to stand in a similar relation to these words as Gr. *πολύ-ρρην* 'rich in sheep' fr. **-Fp-ην* to Arm. *garñ* Skr. *úr-an-a-s*).

Greek.

§ 292. 1. *δρατό-ς δρατό-ς* 'skinned' : Av. *der^hta-* 'cut, mown', Lith. *nu-dirta-s* 'skinned'; *δάροι-ς* 'excoriation' : Skr. *dṛti-ś* 'leather-bag' (cp. Gr. *δέρμα* 'hide'), Goth. *ga-taúrps* 'a destroying', from rt. *der-*. Hom. *ταρπώμεθα τετιόρπετο* from *τέρπω* 'I delight' : Skr. *třpāmi* (not found), *třpyāmi*, *třpñōmi* 'I satiate myself, become satisfied', rt. *terp-*. Aor. *ἐπαρδο-ν* to *πέρδω* 'pedo'; the same root form in OHG. *furz* 'crepitus ventris', Lith. *piřdi-s* m. 'crepitus ventris' *piřdà* 'qui pedit' Russ. *perdĕť* 'pedere' (prim. Slav. **piřdĕti*). *μάρναμαι* 'I fight' and Corcyr. *βαρνάμενος* fr. **βραναμενος* (§ 204) : Skr. *mṛ-ñā-mi* 'I bruise, beat in pieces'. Analogously *βαρδῆν* 'τὸ βιάζεσθαι γυναικάς' *Ἀμπρακιῶται*, fr. **βραδῆν* : Skr. *mṛd-ñā-ti* 'presses vehemently' (cf. Lat. *comprimere feminam*). *τετράφραμεν* to *τέτροφα* (*τρέπω* 'I turn'), like Skr. *dadṛśimā* to *dadārśa* (*darś-* 'see'). *τρασιά* *ταροσιά* 'a drying-kiln' to *τέρσομαι* 'I become dry' : Skr. *třṣya-* 'thirst' *třṣyāmi* 'I am thirsty', rt. *ters-*. *πραχνόν* 'μέλινα

Hesych. : Skr. *ṛṣ̥ā-ni-ṣ* 'spotted'; beside which, with other vowel-grade *περηνό-ς*. *καρδ-ίη καρδ-ιά* 'heart' : Lat. *cor cord-is*, O.Ir. *cride*, Lith. *szirdi-s* O.Bul. *srĩdĩ-ce*.

τέτλα-μεν 1. pl. pf. from *tel-* 'bear', like *γέγα-μεν* to *γεν-* 'gignere' (§ 233). *ἔσταλται* 3. sg. pf. mid. to *σελ-* 'order', like *τέτα-ται* to *τεν-* 'stretch' (233). *πλατύ-ς* 'flat, broad' : Skr. *pr̥thū-ṣ* (§ 288).

It has not been definitely determined on what the varying position of the liquid depends (*ρα λα* and *αρ αλ*). Form association can only be assumed for certain cases, e. g. *δαρτό-ς* : *δέρω δορά*; *ἐκλάπην* : *κλίπτω κέκλοφα*. Cp. the author Kuhn's *Ztschr.* XXIV 258, Osthoff *Morph. Unt.* II 144 f.

α always came first initially. *ἄρκτο-ς* 'bear' : Skr. *ṛkṣā-s*. *ἄρσεν ἄρσεν* 'masculine' : Skr. *ṛṣabhā-s* 'bull' fr. **ṛsy-bho-s*. *ἄρ-νυ-μαι* 'I attain, gain' *μίσθ-υρνο-ς μισθ-άρνη-ς* 'hired servant' : Skr. *ṛ-ṇō-mi* 'I attain, gain'.

Likewise *-αρ* fr. *-γ* finally, see § 285.

In Aeol. *ρο ορ* from *ρα αρ*, as Lesb. *στροτός μέμορθαι*, Bæot. *στροτό-ς*.

§ 293. 2. *σπαίρω ἀσπαίρω* 'I struggle convulsively' fr. **σπαρ-ιω* (§ 130) : Lith. *spiriũ* 'I push with the foot', cpf. **spr-ῖδ*, rt. *sper-*. *σκάλλω* 'I stir up, hoe' fr. **σκαλ-ιω* (§ 130) : Lith. *skilũ* 'I strike fire', cpf. **sq̥l-ῖδ*, from rt. *sqel-*. Analogously *φθαίρω* Dor. (Att. *φθείρω*) 'I destroy', *πτύρω* 'I sneeze' from rt. *pster-* (*πτόρο-ς* 'a sneezing', Lat. *ster-nu-ō*), *βάλλω* 'I throw' from rt. *gel-* etc. *ἐχθαίρω* 'I hate' from **ἐχθγ-ιω* to *ἐχθρό-ς* 'hated', like *ἀγγέλλω* to *ἄγγελο-ς*. On the *i*-epenthesis see § 639.

§ 294. 3. *βαρύ-ς* 'heavy' : Skr. *gurú-ṣ*. Corcyr. *ιαρό-ς* 'holy' : *iṣirá-s* (§ 287). *πάρος* 'in front, before, sooner' : Skr. *purás* before, in front'. The preterites *ἔπταρων* 'I sneezed' *ἔβαλον* 'I threw' go with Skr. *girdāmi*, O.Bulg. *žĩra*, Lat. *tulō* (§ 287); *ἔ-βαλ-ε* : *ἔ-πλ-ε*, *ἔ-πλ-ε-το* 'versabatur' : Skr. *á-huv-a-t* : *á-hv-a-t* 'he called to' (cp. §§ 153. 159). Here belong also passive aor. like *ἐδάρην ἐβάλην*; *ἐ-βάλ-η-ν* : *ἐ-βλ-η-ν* = *ἐ-φύ-ην* : O.Bul. *bě* from **bũ-ē* (§ 184).

General Greek *ορ*, *ολ* in *ἔ-πορ-ο-ν πολ-ύ-ς* etc., concerning which see § 306.

Italic.

§ 295. 1. Lat. *porca* 'the ridge between two furrows', Umbr. Mars. pl. *porculeta* 'porcae' (Pliny) : O.Bret. *rec* 'sulco' Cymr. *rhych* 'furrow' (cp. Thurneysen Keltorum. p. 74 f.), OHG. *furuh* Ags. *furh* f. 'furrow'. Lat. *vorsu-s*, Umbr. Osc. *vorsum* ('quod Graeci πλέθρον appellant, Osci et Umbri vorsum', Frontinus de limit. p. 30, 9), Umbr. *trah-vorfi* 'transverse' : Skr. *vṛt-tá-*, from rt. *uert-* 'turn' (§ 285). Lat. *fors forte*, Osc. *fortis* 'forte', Pelign. *forte* gen. 'fortunae' : Skr. *bhṛ-ti-ṣ* (§ 285). Lat. *or-tu-s* part., Umbr. *ortom orto* 'ortum' : Skr. *ṛ-tá-s* part. 'raised'. Lat. *portu-s porta* : Av. *peṣu-š* 'ford' *hu-per^hpw-i* f. 'having a good ford' (§§ 260. 288), Gall. *-ritum* 'passage' in *Augusto-ritum* (with Latinised ending), OHG. *furt* m. 'ford'. *sporta sportula* : Gr. *σπάρ-το-ν* 'rope, cable'. *cornu-s cornu-m* : Gr. *κράνο-ς κράνο-ν* 'cornel-tree'. *porru-m* fr. **porso-m* (§ 571) : Gr. *πράσο-ν* 'a leek'. *forti-s fortis* : Skr. part. *dṛḍhá-s* 'fast, strong' (to *darh-*), prim. f. **dhṛgh+* *tó-*, rt. *dhergh-*. *tostu-s* from **tors-to-s* : Skr. *tr̥ṣ-tá-s* 'rough, hoarse'. *mo-mord-imus* : Skr. *ma-mṛd-imá* 'we crushed, pounded', rt. *merd-*; cp. also *vort-imus* : Skr. *va-vṛt-imá*. *ursu-s* : Skr. *ṛkṣa-* 'bear' (§ 288).

On the dropping of *r* in Lat. forms as *tostu-s*, *poscō* (§ 288) see § 269.

Lat. *mulsu-s* part., *molta multa* 'a fine, penalty', Umbr. *motar* gen. 'multae', Osc. *moltam* 'multam' fr. prim. Ital. **molk-ta-* : Skr. *mṛṣṭá-* part., indic. *mṛṣṭámi* 'I touch, feel'. Lat. *mulctu-s* : Lith. *mīlszta-s* 'milked', O.Ir. *mlicht blicht* 'milk', from rt. *melg-*. Analogously the Lat. participial forms *oc-cultu-s* from rt. *kel-* 'cover, conceal' : OHG. *helan* 'to hide' (concerning the apparently contradictory *oquoltōd* of the S. C. de Bacch. 15 see Bersu Die Gutturalen und ihre Verbindung mit *v* im Lat. p. 41); *pulsu-s* to *pellō* : Gr. *παλτό-ς* 'brandished, hurled' etc., *tollō* fr. **tl-nō*, from rt. *tel-*.

Rem. *o* before *l* + cons. (except *ll*) uniformly became *u* in Latin, whereas the vowel fluctuated before *r*, cp. *curtu-s* : Gr. *κατρώ-ς* 'shorn, cut', *fornu-s*, later *furnu-s* : Skr. *ghṛ-ṇá-s* 'heat, glow'. A law for this irregularity has not been discovered.

Finally, *-ur* fr. *-r*, *jec-ur*, see § 285.

§ 296. 2. Lat. *morior* : Av. *mer^eyeiti* 'dies' (§ 289). *horior* O.Lat. = *hortor*, probably to Umbr. *heriest* 'volet' Osc. *herest* 'volet' and identical with Gr. *χαίρω* 'I rejoice', to which it was the causat. form ('I make pleasure, joy'); *hortor* would accordingly be from a **horto-* = *χαίρώ-ς* 'wished for'. *orior oriuntur* fr. **r-ió-*, to *ortu-s* : Skr. *rtá-s* (§ 295).

§ 297. 3. O.Lat. *tuſō*, rt. *tel-*. *oc-culō* either fr. **kŷl-ō* or **_celō* (= O.Ir. *celim* OHG. *hilu*) through the influence of the *l*. *gul-* in *gula gulō* rather from **qll-* (cp. Skr. *gira-* *-gīla-* 'swallowing', *gīli-š* f. *gīlana-m* 'a swallowing', § 290) than from **gel-* prim. Ital. **g^eel-*, since in the latter root form **vel-* would be expected (cp. *veniō*, *veru* § 432 b), hence *gula* : OHG. *chela* 'throat' = Gr. Bæot. *παβά* : Goth. *qinō* 'wife'; *gulō* was formed like Goth. *skula* 'debtor' (§ 301).

Old Irish.

§ 298. 1. General Keltic *ri* (*re*), *li* (*le*).

O.Ir. *bri* gen. *breg* (from **brix* **brigos*) 'rising ground', Gall. *brigi-* (in *Brigiani* an Alpine race, *Are-brigiu-m* etc.), Cymr. Bret. *bre* : Skr. *bṛh-ánt-* (§ 288). O.Cymr. *rit* 'ford', Gall. *Augusto-ritu-m* : Av. *pešu-š*, Lat. *portus*, OHG. *furt* (§ 295). O.Ir. *drech* 'face' fr. **drica* prim. f. **dṛkā* : Skr. *dṛś-* 'look', Gr. *ἰδρακον* 'I saw', rt. *derk-*. O.Ir. *brissim* 'I break', *brisc* Bret. *bresk* 'fragile, apt to break', according to Stokes' conjecture (Mém. de la soc. de lingu. V 420) from rt. *bherdh-* : Gr. *πέρθω* 'I lay waste, destroy' aor. *ἔπραθο-ν*; on *brisc* cp. § 516. O.Ir. *lethan* O.Cymr. *litan* 'broad' : Skr. *prthú-š* (§ 288).

O.Ir. *re-nim* 'I give up, sell, grant' : Gr. *πέρονμι* 'I sell, export', which represented an older **παρ-νᾶ-μι* (this form seems to be represented in Hesych. by *πορνάμεν* * *πωλεῖν* with *o* = *a*, § 292 extr.), originally **pr-nā-mi* from rt. *per-*. *ara-chrinim* 'diffiscor' (perf. *do-ro-char*) : Skr. *śṛ-ṇā-mi* 'I separate, break in pieces'. Mid.Ir. *do-breth* 'datum est' : Skr. *bhṛ-tá-* 'carried'; *brith* 'a carrying' : Skr. *bhṛ-tī-š* 'a carrying', from rt. *bher-*. *sreth* 'row' : Lat. *sors sortis* beside *serō*. Here belong further, from such

roots as *bher-*, the part. perf. pass. in *-te*, *brithe brethe* 'brought', and the part. necessitatis in *-ti*, *brithi brethi* 'ferendus'. *cride* 'heart': Gr. *καρδ-της* (§ 292).

bligim 'I milk' from **mligim* (§ 212): O.Bulg. *mlŭzq*, Indg. prim. f. **mġġ-ō* from rt. *melġ-*; to which *mlicht blicht* 'milk': Lat. *mulctu-s*. *clethi* 'celandum' to *celim* 'celo': Lat. *oc-cultu-s*. Inf. *blith* to *melim* 'molo'.

When such syllables with *ri*, *li* = Indg. *r*, *l* became voiceless in composition in Irish, *r*, *l* arose anew through vowel reduction when another syllable followed (samprasāraṇa). From these a vowel was then again developed. Thus e. g. *eperthe* part. pass. 'oblatus' from **éd-brithe* through the intermediate stage **-bythe*. See § 634 and Thurneysen Rev. Celt. VI 315.

2. Examples for the representation of *ri*, *li* are unknown to me.

3. As *yn* became *an*, so also *rr*, *ll* became *ar*, *al*. *maraim* 'I remain': cp. Lat. *mora*, rt. (s)*mer-* (§ 589, 3); *mora* may just as well represent **(s)mṛā* as **(s)mōā*. *scaraim* 'I separate, divide' Cymr. *ysgar* 'separatio', to O.Ir. *scorim scuirim* 'I unharness' *scor* 'an enclosure for unyoked animals' Cymr. *ysgor* f. 'rampart, bulwark': cp. Lith. *skiriū* 'I separate, divide'. -*al-* perhaps in *samail* 'likeness, picture' fr. **sṃm-lli-* (cp. § 243, 4). Cymr. *malu* 'I grind, grind to powder' is more certain: cp. O.Ir. *melim*¹⁾.

Germanic.

§ 299. 1. Prim. Germ. *ur*, *ru*.

Goth. *þaúr-s-u-s* OHG. *durri* O.Icel. *þurr* 'dry, withered': Skr. *tr̥ṣ-ú-ṣ* 'covetous, gaping from dryness'; Goth. *þaúrstei* f. OHG. *durst* m. Ags. *ðyrst* m. 'thirst': Skr. *tr̥ṣ-ṭá-* 'hoarse, rough': Goth. *þaúr-sjan* 'to thirst' (originally a strong verb like *vaúr-kjan* s. below): Skr. *tr̥ṣ-yāmi* 'I am thirsty'; Goth. part. *ga-þaúr-sans*: Skr. Ved. part. *tr̥ṣ-āṇá-s* and *ta-tr̥ṣ-āṇá-s*, from rt. *ters-*. Inf. Goth. *ga-daúr-san* OHG. *turran* Ags. *durran* 'to dare, venture':

1) My attention was drawn to these examples for the representation of *rr*, *ll* in Keltic by Thurneysen.

Skr. *dhřš-á-nt-* part. 'bold'; 1. pl. Goth. *ga-daúrs-um* 'we dare': Skr. *dadhřš-iná* (cp. also *vaúrþum* 'we became': Skr. *vavřtimá*, Lat. *vortimus*); opt. Goth. *ga-daúrs-jáu*: Skr. *dadhřš-yám*; OHG. *ca-turst* f. 'boldness': Skr. *dhřš-ři-ř* f. 'boldness', from rt. *dhers-*. Goth. *vaúrkJan* OHG. *wurchen* 'to work, effect': Av. *ver'zyęiti* 'effects', Gr. *ῥέζω* 'I do' for regular **ῥάζω* from **Fpaγ-ιω* (*ε* after the analogy of *ῥόζω*, *ῥόδιω* etc.), Indg. **uřġ-řǫ*, from rt. *uerġ-*. Goth. *þaúr-nu-s* OHG. *dorn* 'thorn': O.Bulg. *trǫnǫ* 'thorn', Skr. *řřna-m* 'grassblade'. OHG. *zoraht* OS. *toraht torht* 'bright, clear' (for the anaptyctic vowel s. § 277): Skr. *đřš-tá-* 'seen, appearing, revealing', Indg. **đřk-tó-s*, from rt. *derk-*. Goth. *haúrn* OHG. *horn* 'horn': Gr. *κόρνος* 'horned cattle' (Hesych.) and Lat. *cornu*, in case the latter had not Indg. *o*.

Goth. *brōþru-m* dat. pl. of *brōþar* 'brother': cp. Skr. loc. pl. *bhrātř-řu*. Part. OHG. *rohhan* 'revenged, avenged' (beside inf. Goth. *vrikan* OHG. *rehhan*): Skr. part. *vavřjand-* pres. *vářjati* 'turns off', *pari-vargá-s* 'a laying aside'. So also part. Goth. *þruskans* OHG. *droskan* 'thrashed', beside inf. *þriskan dreskan*, Goth. *brukans* OHG. *brohhan* 'broken' beside inf. *brikan brehhan*, OHG. *sprohhan* 'spoken' beside inf. *sprehhan* etc. Goth. *trudan* O.Icel. *troða* 'to tread', OHG. *trotta* f. 'a press' beside OHG. inf. *tretan*; Goth. *trudan*: OHG. *tretan* = OHG. *koman*: Goth. *qiman* (§ 247).

Goth. *vulfs*, OHG. *wolf* 'wolf': Skr. *vřka-s*. Goth. *fulls* OHG. *fol* (infl. *follēr*) 'full': Lith. *přlna-s*, Av. *per'na-*. Goth. *skulds* part. 'obliged', OHG. *sculda* 'debt', to indic. Goth. *skal* OHG. *scal* 'I shall' (related to Lat. *scelus*?). Goth. pf. pl. *fra-guldum* part. *-guldans* to inf. *fra-gildan* 'to repay'. Goth. part. **hlufans* to *hlifan* 'to steal' (cp. Gr. *κλέπτω*, *ἐκλάπην*) like *brukans* to *brikan*? Goth. *lustu-s* 'desire', probably to Lat. *lascivo-s*, Skr. *lā-las-a-s* 'desirous, eager for' *lāřami* 'I desire' fr. **la-ls-ā-mi* (§ 259).

The diversity of the position of the liquid (*ur* and *ru*) was in part undoubtedly due to other forms of the same form-system, cp. e. g. Goth. *þruskans*: *þriskan* with *þaúrsans*: *þairsan*. The independent forms have not yet been satisfactorily settled;

cp. the author Kuhn's *Ztschr.* XXIV 258 ff., Osthoff *Morph. Unt.* II 49. 145. It however seems to me probable (cp. Kluge Kuhn's *Ztschr.* XXVI 90) that these forms are *ur*, *ul*.

On the change of *u* to *au* (before *r*) in Goth. and *u* to *o* in West Germ. and Norse see § 51.

§ 300. 2. Goth. opt. *skuljáu* to *skal* 'I shall', as *munjáu* to *man* 'I think' (§ 245). OHG. *hulla* MHG. *hülle* f. 'veil, cover' fr. prim. Germ. **χuljō*, to OHG. *helan* 'to conceal', rt. *kel*.

§ 301. 3. Part. pret. pass. Goth. *baúr-ans* (*batran* 'to bear'), *ga-taúr-ans* (*ga-tatran* 'to tear in pieces'), *stulans* (*stilan* 'to steal'), OHG. *boran*, *zoran*, *stolan* : cp. O.Bulg. part. pret. pass. *tır-enŭ* to *tırq* 'I rub' fr. rt. *ter-* (§ 305) and Skr. *ti-stir-āná-s* part. pf. mid. from rt. *ster-* 'strew'. Goth. *skulan* OHG. *scolan* 'to be obliged', part. Goth. *skulands* 'obliged', probably also Goth. *vulands* 'seething' (to OHG. *walm* 'heat') : cp. pres. Skr. *girāmi* O.Bulg. *žirq* from rt. *ger-* 'swallow' (§ 287). Goth. *skula* OHG. *scolo* 'debtor', like Ags. *cuma* 'advena' OHG. *willi-como* 'welcome' from rt. *gem-* (cp. § 247). OHG. *hol* O.Icel. *holr* 'hollow', Goth. *hulundi* f. 'a hollow' (cp. § 244), to OHG. *helan* 'to conceal' : cp. Gr. *καλ-ῖά* 'hut, barn'. On Goth. *au*, West Germ. Norse *o* see § 51.

Baltic-Slavonic.

§ 302. Indg. *r*, *l* uniformly became *ir*, *il* in the prim. Baltic-Slav. period. Though it cannot be strictly proved, it is nevertheless probable, that the *i* in these combinations differed from Indg. *i* in the same manner as the *i* in *in* = Indg. *ŋ*. See § 248. We accordingly put the prim. Baltic-Slav. forms down as *ir*, *il*.

Thence in Lith. *ir*, *il*.

In prim. Slav. *ir*, *il*. *r* and *l* retained this position in O.Bulg. before *i* and sonants, in other cases they were transposed (*ri*, *li*). The labial timbre of the *l* caused the neighbouring *r* to pass into *ŕ*. But the orthography is very inconsistent, and it would be difficult to decide how far the regular state has

been disturbed in the living language by form-association. Cp. § 305 rem.

Rem. 1. That *īr*, not *rī* or *ŕ* was also spoken in prim. Slav. before consonants in such cases as *črīnū* 'black' (= Pruss. *kirsna-*, Skr. *kṛṣṇá-* 'black', Indg. **qrsno-*) is proved on the one hand by the transition of a preceding *k* to *č* (§ 461), in which all Slav. dialects took part (Serv. *c*), and on the other by the dropping of the *s* in *črīnū*, which is only conceivable on the assumption of an older form **čīrsnū* (s. §§ 585, 2. 588, 6).

Rem. 2. The treatment of prim. Slav. *īr*, *īl* varied greatly in the different Slav. dialects. Suffice it here to remark that Serv. Slov. and Czech went back again to Indg. liquids sonans, e. g. O.Bulg. *črīnū* = Serv. *crn*, Slov. *črn*, O.Czech *črný* (the latter the def. form of the adj. = O.Bulg. *črīny-jī*).

§ 303. 1. Lith. *žirni-s* m. 'pea', O.Bulg. *zrīno* 'corn': Goth. *kaiurn* 'corn'. Lith. *szīrszū*, gen. *szīrszeñs*, O.Bulg. *srī-šen-ī* 'hornet, gad-fly': OHG. *hornaz* 'hornet' fr. prim. Germ. **hurzn-ata-z*, cpf. **hys-en- *hys-n-* (cp. Lat. *crabrō* § 306). Lith. *kirmi-s* m. 'worm', O.Bulg. *črīmīnū* 'red' (*črī-vī* 'worm' with a diff. suffix): Skr. *kṛmi-ṣ* 'worm'. Lith. *kiṛsta-s* 'hewn', O.Bulg. *črīta* 'I cut': Skr. *kṛttā-s* 'cut off', from rt. *qert-*. Lith. *viržys* 'cord' *viržėti* 'to bind with cord', O.Bulg. *vrīza* 'I bind, close': OS. *wurgil* 'a strangling cord' OHG. *wurgan* 'to strangle', from rt. *uergh-*. Lith. *tīrp-ti* 'to grow stiff, to become feelingless', Russ. *terpnuť* 'to grow stiff' (prim. Slav. **tīrpnati*): Lat. *torpeō* (Lat. *torp-* = Indg. **tṛp-* or *torp-*?).

O.Bulg. 2. sg. opt. (imper.) *rīri* 'say' orig. f. **rgoi-s*, 1. sg. pres. *reka*, cp. the accidence.

Lith. *vīlna* 'a single hair of wool', O.Bulg. *vlūna* 'wool': Goth. *vulla* 'wool' fr. **vulna* (§ 214 p. 181). Lith. *vīlkiū* 'I am clad in, with', Lith. *vīlkēs* O.Bulg. *vlūkū* part. pret. act. to *velkū* *vlēka* 'I drag': Gr. *αῖλας* 'furrow' (**Flak-*) beside *ἔλαω*, rt. *uelq-*. Lith. *vīlgau* 'I moisten', O.Bulg. *vlūgūkkū* 'moist': OHG. *wolchan* n. *wolcha* f. 'cloud', from rt. *uelq-*. O.Bulg. *dlūgū* 'duty': O.Ir. *dliged* 'lex, officium' O.Ir. *dligim* 'I deserve, am entitled to', Goth. *dulgs* 'debt', rt. form *dhlg-*. O.Bulg. *zlvā* 'husband's sister': Gr. *γαλόως γάλας*.

§ 304. 2. Lith. *spiriù* : Gr. *σπαίρω*, *skilù* : Gr. *σκάλλω*, s. § 293. Analogously *diriù* 'I skin' (Szyrwid's *dirru* is probably to be read thus) rt. *der-*, *giriù* 'I praise' rt. *ger-*. O.Bulg. *vřja* 'I boil up, seethe' 2. sg. *vřiši* (inf. *vřěti*) might be put here under the supposition that the original inflection of the present was **vřješi* etc., like *žinja žinješi* (§ 250); cp. Czech *vrú* (in O.Bulg. form **vřa*) like *třa mřa* etc. (§ 305). Lith. pl. *tìlės*, gen. *tìlū*, 'board in the bottom of a boat', O.Bulg. *tìlja* 'bottom' : cp. Skr. *tūlya-* 'equal, straight', rt. *tel-*.

§ 305. 3. Lith. *mirusi* O.Bulg. *mřiši* part. pf. fem. 'mortua', O.Bulg. *mřa* 'morian', rt. *mer-*. Analogously pres. Lith. *pilù* 'I cast, shed' from rt. *pel-* 'fill', O.Bulg. *žřa* 'I swallow' = Skr. *girdmi gilāmi*, rt. *ger-*, *třa* 'tero' and others.

Rem. *ūr* occasionally occurs for *řr* before non-palatal vowels in the Zographos gospel, e. g. *dūrati* for *đřati* 'to split, tear in pieces', and vice versa, *zīlē* loc. beside *zūlū* nom. 'bad' etc. Cp. § 36 rem.

2. Long Sonant Liquids.

§ 306. Regarding the representation of Indg. *ř*, *ļ* in the individual languages there still remains much that is doubtful just as in the case of Indg. *ř*, *ņ*. We hold the following developments as certain : Skr. *řr*, *ūr* (cp. *řr*, *ur* = Indg. *řr* or *ļ* § 290), Av. O.Pers. *ar*; Gr. *ορ ολ* and *ρω λω*, finally *ωρ*; Lat. *ar* (*al*) and *rā lā*; Kelt. *lā*; Germ. *ar*, *al*.

Indg. *ř*.

**řdhvós* 'upright' : Skr. *ūrdhvá-s*, Gr. *ὀρθός*, Lat. *arduo-s* from prim. Ital. **arþvo-s* (§ 170 p. 150, § 370).

**ř-mós* 'arm, bow' : Skr. *řmá-s* Av. *ar^ema-*, Armen. *armukn*, Lat. *armu-s*, Goth. *arms*, O.Bulg. *ramę* fr. **ormę* (§ 281).

**ř-ti-s* : Lat. *ars artis*, OHG. *art* 'manner'. From the same root Skr. *ř-tá-m* 'propriety, right manner'.

stř- from rt. *ster-* 'spread' : part. perf. pass. Skr. *stř-ñá-s* Av. *star^e-ta-* Gr. *στρο-τό-ς* Lat. *strā-tu-s*, Gr. *στροῦ-μα* Lat. *strā-men* 'straw', Gr. *ἔστρο-ται στόρ-νῦμι* and others.

gř- from rt. *ger-* 'grind' : Skr. *jř-ñá-* 'ground to pieces, wasted away', Lat. *grā-nu-m* 'grain'.

př- (cp. Skr. *purás* Gr. *πάρος* § 294) : Skr. *pūr-va-s* 'the one in front', Gr. *πρῶτο-ς* Dor. *πρᾶτο-ς* 'the first' from **πρώ-ῑ-ατο-ς* (cp. *τρίτ-ατο-ς* 'the third'), Dor. *πρᾶν* 'formerly' fr. **πρωφᾶν*, Att. *πρόην* 'lately' fr. **πρωφῖαν* (O.Bulg. *прѣ-уѣ-ѣ* 'the first' : Skr. *pūr-va-s* = *plū-nū* 'full' : *pūr-ná-s* etc., s. below).

křs- : Skr. *śrīṣ-á-m* 'head' Gr. *κόρος-η* 'head, temples'.

gř- from rt. *ger-* 'swallow' : Skr. *gīr-ná-* part. pass., *gīr-ya-* gerund, *gīr-ni-ṣ* 'a swallowing', Gr. *βιβρώ-σκω* 'I eat, devour'. *βρω-τήρ* 'eater, devourer' *βρω-μα* 'food'.

př- 'to share in' : Gr. *πέ-ρω-ται*, Lat. *pars partis* (beside *portiō* fr. **př-ti-*). If *pariō* also belongs to this root, as is assumed by Curtius Grundz. ⁵ 282, it must be traced back to **př-īō*, cp. Skr. *jūryāmi* from rt. *ger-* 'fall away, become fragile'.

Skr. *śūr-tá-* 'destroyed', Av. *a-sar-ta-* 'unhurt', root form *kř-*.

Gr. *πρώξ -κος* 'a drop' : cp. *πρωκνό-ν* (§ 292 p. 233), *περκενό-ς* 'sprinkled', Skr. *přśni-ṣ* 'speckled, variegated'.

Lat. *rādix* fr. **urād-* (§ 168) **urād-* : cp. Gr. *ράδ-αμνο-ς* 'shoot, sprout' Goth. *vairts* 'root' fr. **urđ-*.

Lat. *crātēs* pl. fr. **qřt-* : cp. Gr. *κάρι-αλο-ς* 'basket' Goth. *haurds* 'door' OHG. *hurt* 'hurdle-work, hurdle' fr. **qřt-*.

Lat. *crābrō* 'hornet' fr. **crās-rō* (§ 570) **křs-*; beside which Lith. *szirszū* etc. fr. **křs-*, § 303.

Lat. *quartus* fr. **ctvarto-s*, Indg. **qtuř-to-* (beside Indg. **qetux-to-* § 285).

Gr. *ὑδ-ωρ* 'water' from **ř-*; perhaps corresponding to Lat. *ub-er* fr. **-ar*, **ř-*. Cp. § 285 p. 228.

Indg. *l*.

př- from rt. *pel-* (*plē-*) 'fill' : Skr. *pūr-ná-s* 'filled' imper. *pūr-dhī* 'fill', Gr. *πολλοί* 'many' fr. **πολ-νό-* (or *πολ-λό-ρ*), O.Ir. *lān* O.Cymr. *laun* 'full'.

**ul-nā* f. 'wool' : Skr. *ūrṇā*, Lat. *lāna* (cp. §§ 151. 157. 168), Gr. *οὔλο-ς* 'fleecy' fr. **folno-ς* (§ 204).

**mřdh-* : Skr. *mūrdh-án-* 'height, highest part, head', Gr. *βλωθ-ρό-ς* 'high-grown'.

**dǣgho-* 'long' : Skr. *dīrghá-s* Av. *dar̥ga-* O.Pers. *darga-*, Gr. *δολιχός* (with enigmatical *ι*).

**ǵmi-s* 'ebullition' : Skr. *ūr-mī-ṣ* 'wave' (§ 157), Ags. *wielm wylm* 'ebullition, wave' prim. Germ. **ǵalmi-z*. To which OHG. OS. *wallan* 'to be agitated, boil up' prim. Germ. **ǵalnana-n* (§ 214), cp. *wellan* 'to roll, move'.

Skr. *sthūṇā-* 'post, stake' fr. **sthūlnā-*, orig. **stǵnā-*.

Gr. Lesb. *βόλλο-μαι* Att. *βούλο-μαι* (beside Dor. *δήλο-μαι*) 'I will, wish, desire' fr. **ǵl-no-*, rt. *gel-* (§ 204).

Lat. *lātu-s* 'carried' probably fr. **tǵ-to-s*, rt. *tel-*.

Lat. *clād-ēs* : to *per-cellō* fr. **-celdō*, part. *-culsu-s* from **kǵl+to-*, Gr. Hom. *ἐκλασσα* 'broke' *κλαδ-άσαι* *σιῖσαι* Hesych. Cp. § 369.

O.Ir. *blāith* 'tender, soft' fr. **mlā-ti-s* prim. f. **mǵ-ti-*, to *melim* 'I pound'; Cymr. *blawd* 'meal' fr. **mǵ-to-*. On *bl-* fr. *ml-* see § 212.

The side by side existence of *ρω* and *ορ* in Gr. and *ra* and *ar* in Lat. may be compared with that of Gr. *ρα* and *αρ*, Germ. *ru* and *ur* fr. Indg. *r* (§§ 292. 299). Gr. *ορ*, Lat. *ar* fr. **ωρ*, **ār* were possibly shortened after the same principle as that which gave rise to Gr. part. *ἄεντ-* 'blowing' (indic. *ἄημι*) and Lat. *vent-u-s* fr. **μῑ-nt-* (§§ 611. 612). *ῥωωρ* especially speaks in favour of this theory; for *ῥωωρ* : *στόρνυμι* = *ἄην* : *ἄεντ-* and *λίκω* : *λίκοις* (§§ 85. 611).

Skr. *gīr* 'praise' fr. **gīr-ṣ* **ǵr̥-s* loc. pl. *gīrśú* fr. **ǵr̥-su* and *pūr* 'fixed place' fr. **pūr-ṣ* **pǵ-s* loc. pl. *pūrśú* fr. **pǵ-su* correspond to nouns like *jā-s* fr. **ǵñ-s* § 253 p. 207. But between the nom. sg. *gīr pūr* and instr. sg. *girá purá* nom. pl. *gíras púras* (*gir-* *pur-* fr. **ǵr-* **pǵl-*, § 290) there exists precisely the same relation as between nom. sg. *dhīś* ('thought') *bhūś* ('earth') and instr. sg. *dhiyá bhuvá* nom. pl. *dhiyas bhúvas*. This parallelism was inherited from the Indg. prim. period (p. 250).

It is remarkable that in Greek antesonantal *ορ*, *ολ* and anteconsonantal *ρω* *ορ*, *λω* *ολ* frequently stand to each other in the same relation as Skr. *ir ur* and *īr ūr*, since one would expect *ωρ* *αλ* as the representative of Indg. antesonantal *yr*,

μ (§ 294). ἔ-πορ-ο-ν 'gave, brought': πέ-πω-ται. ἔ-τορ-ο-ν 'pierced': τι-τρώ-σκω 'I master, injure, wound' (cp. Skr. *tur-ā-* 'advancing; injured, wound': *tūryāmi* 'I overpower' *prá-tūrti-ṣ* 'a mastering, combat'). ἔ-θορ-ο-ν 'leapt, sprang': θρώ-σκω θόρ-νυμαι. ἔ-μολ-ο-ν 'went, came': βλώ-σκω. βόλομαι 'I will, wish': Lesb. βόλλομαι. πολ-ύ-ς 'much' (Skr. *purú-ṣ*): πολλοί¹⁾). It may be inferred that the development of the vowel from short sonant liquid was influenced by the quality of the long vowel developed from *ῥ*, *ῖ*. Compare the transition of *θα-τό-ς and *δα-τό-ς to θε-τό-ς and δο-τό-ς through the influence of θη- and δω- (§ 109 c.). If this inference is right, there must once have stood beside πόλ-ι-ς 'city' (Skr. *purī purī-ṣ*, Lith. *pilī-s*) an antec consonantal πολ- or πλω- = Skr. *pūr-* (*pūr-bhīṣ* etc.).

ABLAUT (VOWEL GRADATION)²⁾.

§ 307. By ablaut or vowel gradation we understand such quantitative, qualitative and accentual differences of the sonantal element of a root- or suffix-syllable, as were not called forth by sound-laws which were in operation at the time of the individual development of the Indg. languages, but had their origin either directly or indirectly in prim. Indg. differences. With them are further often also connected consonantal differences in the syllable containing the sonantal element. The following, e. g., stand in ablaut relation to one another: Lat. *da-tus* : *dō-num*; *s-iē-s* (O.Lat. for *sīs*) : *s-ī-mus*; Gr. ἄγ-ω : στρατ-ᾱγ-ός (Ion. Att. στρατ-ηγ-ός); λείπ-ειν : λοιπ-ός : λιπ-εῖν; ἄγ-ε-τε : ἄγ-ο-μεν; μῆ-τιρ-ες : μῆ-τρ-ός : μῆ-τρά-σι; Goth. *aúhs-in* : *aúhs-an-s* : *aúhs-n-ē* (loc. sg., nom. pl., gen. pl. of *aúhsa* 'ox') : Skr. *pác-āmi* 'I cook' : *pak-tás* 'cooked' (difference of accentuation).

1) Hom. πολύ-ς is probably to be explained from a supposed stem form *πολϝ- = Skr. *pūr-* (fem. instr. pl. *pūrv-ī-bhīṣ*) Indg. *p^hl-ϝ-, which regularly gave πολυ- just as οὔλο-ς 'whole' from *óλϝο-ος (§ 166). πολυ- and πολυ- became contaminated to πολυ-.

2) The most important literature has been mentioned on p. 31—32 footnote 2. To this may further be added Leskien *Der Ablaut der Wurzelsilben im Litauischen*, Leipzig 1884.

Rem. 1. Accordingly the difference, e. g., between Gr. $\xi\gamma\omega-\nu$ $\xi\gamma\omega-\mu\epsilon\nu$ and $\xi\gamma\omega-\nu$ $\gamma\rho\acute{o}-\nu\tau\epsilon\varsigma$ has nothing to do with ablaut; since $\gamma\omega$ became $\gamma\rho\omega$ by a special Greek shortening, s. § 611; nor the contrast between Goth. *þagkja* 'I think' and *þāhta* 'I thought' (s. § 214 p. 181), nor that between OHG. *ird-in* 'earthen' and *erd-a* 'earth' (s. § 67 p. 57) etc.

Rem. 2. Indg. long vowels, which from etymological considerations are shown to be the product arising from the contraction of two vowels (§§ 111—115), are rightly not put under ablaut as separate members. Cp. e. g. abl. sg. **ekwōd* (Lat. *equō*) fr. **ekwo-a*d* nom. pl. **ekwōs* (Skr. *āśvās*) fr. **ekwo-es* (§ 115) beside nom. sg. **ekwo-s* (Lat. *equos*) voc. sg. **ekwe* (Lat. *equē*) etc. Cp. § 314.

§ 308. *i* and *u* with a preceding or following vowel (*ai*, *ia*) stand, so far as relations of ablaut are concerned, on a level with consonant nasals and liquids. The following root-syllables, e. g., correspond to each other:

bheǵdh-, *bhoǵdh-* (Gr. $\pi\epsilon\iota\theta-\epsilon\iota$, $\pi\acute{\epsilon}-\pi\omicron\iota\theta\epsilon\varsigma$) } (*bhendh-*, *bhondh-* (Goth. *bind-iþ*, *band*)
bheǵdh-, *bhoǵdh-* (Goth. *biud-iþ*, *bāuþ*) } (*derk-*, *dork-* (Gr. $\delta\epsilon\rho\kappa-\epsilon\tau\alpha\iota$, $\delta\acute{\epsilon}-\delta\omicron\rho\kappa-\epsilon$)
sǵep-, *sǵop-* (O. Icel. *svef-n*, Lith. *sāp-na-s*) : *prek-*, *prok-* (Lat. *prec-or*, *proc-us*).

The sonants *i* and *u* appear in the place of *i* and *u* in the ablaut-grade, which is deprived of the vowels *e* *o*, just as sonant nasals and liquids in the place of the consonant.

bhidh- (Gr. $\xi-\pi\iota\theta-\epsilon$) } : { *bhǵdh-* (Goth. *bund-ans*)
bhudh- (Goth. *bud-ans*) } : { *dǵk-* (Gr. $\xi-\delta\rho\alpha\kappa-\epsilon$)
sup- (Gr. $\upsilon\pi-\nu\omicron-\varsigma$) : *pǵk-* (Lat. *poscō* fr. **pǵ(k)skō*, § 288).

To the ablaut *bheǵdh-* : *bhoǵdh-* : *bhidh-*, *bhendh-* : *bhondh-* : *bheǵdh-*, *derk-* : *dork-* : *dǵk-* corresponds the ablaut *pet-* : *pot-* : *pt-* (Gr. $\pi\acute{\epsilon}\tau-\epsilon\tau\alpha\iota$: $\pi\omicron\tau-\alpha\tau\alpha\iota$: $\xi-\pi\tau-\epsilon\tau\omicron$). The only difference is that in the latter case the last grade does not form a syllable in itself. The last grade, in the case of roots like *bheǵ-* *gen-*, whose ablaut is exhibited as *bheǵ-* : *bhoǵ-* : *bhu-* *bhy-* and *ǵen-* : *ǵon-* : *ǵh-* *ǵn-*, may be both syllabic and non-syllabic; cp. Gr. $\varphi\acute{\upsilon}-\sigma\iota\varsigma$ beside $\upsilon\pi\epsilon\rho\varphi\alpha\lambda\omicron\varsigma$ fr. **úpero-φ-ιαλος* (§ 166 p. 147), $\gamma\acute{\epsilon}-\gamma\alpha-\mu\epsilon\nu$ beside $\gamma\acute{\iota}-\gamma\omega-\epsilon\tau\alpha\iota$.

§ 309. We distinguish six ablaut-series. They all have one grade in which the vowel of the syllable has entirely disappeared. Representing this by *Ø*, we have the following vowel-series:

1. *e*-series: Ø , *e*, *o*, \bar{e} , \bar{o} .
2. \bar{e} -series: Ø , \bar{e} , \bar{a} , \bar{o} .
3. \bar{a} -series: Ø , \bar{a} , \bar{a} , \bar{o} .
4. \bar{o} -series: Ø , \bar{o} , \bar{o} .
5. *a*-series: Ø , *a*, (*o*?), *a*, \bar{o} .
6. *o*-series: Ø , *o*, \bar{o} .

Many attempts have already been made (the most recent by Hübschmann *Das idg. Vocalsystem*, 1885) to systematise these series morphologically, i. e. to place together those phases of the different series, which belong to a definite morphological category, e. g. the root-syllable of participles formed with *-to-* or of the present indic. formed with the so-called thematic vowel. A parallelism clearly exists in many cases. E. g. part. **d + tó-s* 'given' (Skr. *dēvá-tta-s* 'god-given') to **é-dō-m* 'I gave' (Skr. *á-da-m*) from rt. *dō-*, as **i-tó-s* 'gone' (Skr. *itá-s*) to **é-ej-m*, contracted **éj-m* 'I went' (Skr. *áy-am*) from rt. *ej-*. Or **k̑-n-ŋti* 3. pl. 'they sever, break' (Skr. *śr-n-ánti*) to **k̑-ná-mi* 1. sg. (Skr. *śr-ná-mi*) with present suffix *-ná-*, as **qi-nŋ-ŋti* 3. pl. 'they pile up' (Skr. *ci-nv-ánti*) to **qi-néŋ-mi* 1. sg. (Skr. *ci-nō-mi*) with present suffix *-neŋ-*. On this principle, the three first series e. g. have been parallelised in the following manner:

	Weak grade	Medium gr.	Strong gr.
<i>e</i> -series:	0 $\overbrace{(e)}$,	<i>e</i> ,	<i>o</i>
\bar{e} -series:	0 \bar{e} ,	\bar{e} ,	\bar{o}
\bar{a} -series:	0 \bar{a} ,	\bar{a} ,	\bar{o} ,

from which the members \bar{e} and \bar{o} of the *e*-series were excluded because parallels were not found to them (they appear e. g. in Gr. *πα-τῆρ* and *δω-τωρ*, Dor. *πῶς* 'foot') in both the other series.

The investigations instituted in this direction have not yet gone far enough to let us give a system of gradation-series completely worked out on this principle. And it is questionable whether we have a right to aim at the attainment of such a system at all, in the sense in which it is usual to do so. Several strata of formations, distinct in their time of origin, seem to overlies each other. In those which arose earlier, much

may have been obliterated by transference of forms before the new cause of gradation came into activity, and the later phonetic law which called new distinctions into being did not act in the same manner as the older law or laws. In this case it is from the outset impossible to expect that parallels can be found everywhere.

§ 310. Clearness prevails most of all in the case of the weak grade, which is recognisable in each ablaut-series and assumes in most series a distinct twofold shape. It is due to a reduction of the vowel, which was caused through the chief accent lying on the following syllable. Cp. e. g. the participles, **d*+*tó-s* from rt. *dō-* and **i-tó-s* from rt. *eĭ-*, quoted in § 309. This connexion between accentuation and the phase of ablaut is best recognisable in Skr., since this language had most faithfully preserved the prim. Indg. accentuation (§§ 669. 672).

What we denote as the 'weak' stem-form in the accidence, has weak grade vocalism.

Rem. Many phenomena of younger phases are instructive for the relation of *dyk-* to *pt-* etc. (§ 308). E. g. by the West Germ. law of syncope OHG. **hōrita* 'heard', **brannita* 'burnt' appear as *hōrta*, *branta*, whereas **zimbrita* 'built' (= Goth. *timrida*) became **zimbrta*, whence historic *zim-barta*; prim. Germ. **yulfaz* 'wolf' became OHG. *wolf*, whereas prim. Germ. **akraz* became **akrz*, whence OHG. *acchar* (§§ 623 rem. 1. 635).

Opposed to the weak grade we call the other phases of each series the strong grades and distinguish strong grade 1. 2. etc. It is not known whether the strong grades, having the same number in the various series, always came into existence under the same conditions of accentuation etc.

What we denote as the 'strong' stem-form in the accidence, has strong grade vocalism.

1. *e*-series.

§ 311. The scheme is:

Weak grade		Strong grade			
a. unaccented	b. secondary accented	1	2	3	4
0	(e)	é	o	ē	ō

This series appears most completely carried through in the nominal suffixes *-(t)er-* (*-(t)or-*), *-en-*, *-men-* and in the stem *ped-* 'foot':

$\left. \begin{array}{l} -(t)r- \\ -(t)r- \end{array} \right\}$	$-(t)rr-$	$-(t)ér-$	$-(t)or-$	$-(t)ér-$	$-(t)ör-$
$\left. \begin{array}{l} -n- \\ -n- \end{array} \right\}$	$-nn-$	$-én-$	$-on-$	$-én-$	$-ön-$
<i>pd-</i>	<i>ped-</i>	<i>ped-</i>	<i>pod-</i>	<i>pēd-</i>	<i>pōd-</i>

Wg. a. *-tr-*: Gr. gen. sg. *πα-τρ-ός*, Skr. instr. sg. *pi-tr-ā*, Goth. gen. sg. *fa-dr-s*. *-tʃ-*: loc. pl. Gr. *πα-τρά-σι*, Skr. *pi-tʃ-ṣu*, Goth. dat. pl. *fa-dru-m*. — Wg. b. *-tʃr-*: perhaps Skr. nom. acc. *sthā-tūr* (§ 285). — Str.g. 1. *-tér-*: acc. sg. Gr. *πα-τέρ-α*, Skr. *pi-tár-am*, Lith. *dūk-ter-ì* O.Bulg. *dŭš-ter-e*. — Str.g. 2. *-tor-*: acc. sg. Gr. *φρά-τορ-α*, Skr. *svás-ar-am*, O.Ir. *siuir*, Goth. *brō-par svist-ar*. — Str.g. 3. *-tēr-*: nom. sg. Gr. *πα-τήρ δο-τήρ*, Skr. *pi-tā dā-tā*, Lat. *pa-ter* (§ 655, 4), O.Icel. *faðer faðir*, Lith. *duktė* O.Bulg. *dŭšti*. — Str.g. 4. *-tör-*: nom. sg. Gr. *φρά-τωρ δώ-τωρ*, Skr. *bhrā-tā dā-tā*, Lat. *da-tor* (§ 655, 4), O.Ir. *siur*, Lith. *ses-ũ*.

Wg. a. *-n-*: Gr. gen. sg. *ἀρ-ν-ός*, adj. *ῥών-μν-ος*, Skr. gen. sg. *ukṣ-ṇ-ās nā-mn-as*, Lat. *car-n-is*, Goth. gen. pl. *auhs-n-ē na-mn-ē*. *-n-*: Gr. loc. pl. *φρα-σί* (from *φρήν*), fem. *πρό-φρα-σσα* (to *πρό-φρων*), neut. *ὀνό-μα-τα*, Skr. loc. pl. *ukṣ-ā-su nā-ma-su*, Lat. *cōgnō-men-tu-m*, OHG. *hliu-mun-t*. — Wg. b. *-nn-*: Skr. gen. sg. *brāh-man-as* (§ 231). — Str.g. 1. *-én-*: acc. sg. Gr. *ἀν-έν-α φρ-έν-α ποι-μίν-α*, Skr. *ukṣ-ān-am aya-mān-am*, Goth. loc. sg. *auhs-in*, Lith. acc. sg. *pė-men-ì*. — Str.g. 2. *-on-*: acc. sg. Gr. *τέκτ-ον-α φρό-φρ-ον-α ἄκ-μιν-α*, Skr. *tákṣ-an-am áś-mān-am*, Goth. *ah-man*. — Str.g. 3. *-én-*: nom. sg. Gr. *ἀν-ήν φρ-ήν ποι-μήν*, Skr. *ukṣ-ā, aya-mā* O.Icel. *ux-e*. — Str.g. 4. *-ön-*: nom. sg. Armen. *šun*, Gr. *τέκτ-ων πρό-φρ-ων ἄκ-μιν*, Skr. *tákṣ-ā áś-mā*, Lith. *ak-mũ*, O.Bulg. *ka-my*; Gr. acc. sg. *Κρονί-ων-α* nom. pl. *ὀυραί-ων-ες*, acc. sg. Lat. *rati-ōn-em* Goth. *raþj-ōn*, O.Bulg. nom. pl. *gražd-an-e* (§ 219 p. 187).

The change between *e* and *o* and between *ē* and *ō* seems

here (cp. the material collected together by Collitz in Bezzenger's Beitr. X 34 ff.), as also frequently in other circumstances, to have been so regulated that *e* and *ē* originally stood in chief-accented syllables, *o* and *ō* in the next following syllable.¹⁾

Wg. a. *pd-*: Av. *fra-bd-a-* (*-bd-* fr. **pd-* § 469, 2) 'the instep of the foot'. — Wg. b. *ped-*: Gr. Lesb. Bæot. *πεδ-ά* (instr.) 'after, with' (cp. Osthoff Zur Gesch. d. Perf. 574), *πεζό-ς*, gen. sg. Lat. *ped-is* Skr. *pad-ás*. — Str.g. 1. *ped-* (whether it occurs, is uncertain). — Str.g. 2. *pod-*: acc. sg. Gr. *πόδ-α* Skr. *pād-am*, nom. pl. Arm. *ot-ē* (§ 330 rem.), to which Lat. *tri-pod-are*. — Str.g. 3. *pēd-*: Lat. nom. sg. *pēs*, perhaps also Lith. *pēd-à* 'foot-print'. — Str. g. 4. *pōd-*: Gr. Dor. *πός*, Goth. *fōt-u-s*. — Umbr. *du-purs-us* 'bipedibus' either Str.g. 2 or 4, according as *u* is to be understood as *ō* or *ō*. Skr. nom. sg. *pāt* either Str.g. 3 or 4.

Rem. In the Indg. prim. language the simple form perhaps had in the nom. sg. **pēd-*, acc. sg. **pēd-* (Lat. *ped-em* ?), whereas the compounds (cp. Skr. *aṣṭā-pāt*, Gr. *ὀκτώ-πους* etc.), and also the simple form, when in accent it entered into a close connexion with preceding words, had **-pōd-* and **-pod-*. Then levellings in various directions took place²⁾.

For further information regarding these declensions with gradation see the accidence.

§ 312. The weak grade.

In formative syllables ending in an explosive or a spirant, the weak grade has only two forms, while four appear in those ending in *i*, *u*, nasal, liquid, since the unaccented as well as the secondary accented phase assumes two forms according as a sonant or a consonant follows:

1) Cp. G. Meyer in Kuhn's Ztschr. XXIV 248, Mahlow Die langen Voc. 161, Fick Gött. gel. Anz. 1880 p. 421 ff., Möller Paul-Braune's Beitr. VII 492 ff.

2) By this it is not implied that this change in the vowel quality is to be maintained for all monosyllabic gradating nouns. These nouns were not all created in the same period.

a. unaccented.		b. secondary accented.	
rt. <i>ped</i> -:	<i>pā</i> - (Av. <i>fra-bā-a</i> -)	<i>ped</i> - (Skr. gen. <i>pad-ās</i>)	
rt. <i>ed</i> -:	<i>d</i> - (Gr. <i>ἄει-σ-το-ν</i> 'breakfast')	<i>ed</i> - (Skr. 2. pl. imper. <i>at-tā</i>)	
rt. <i>sneigh</i> -:	<i>snigh</i> - (Gr. <i>νίφα</i>)	<i>snigh</i> - (Gr. <i>νίφ-ει</i>)	
rt. <i>leg</i> -:	<i>lug</i> - (Goth. <i>lukans</i>)	<i>lūg</i> - (Goth. <i>lūkan</i>)	
before sonants		before cons.	before son.
rt. <i>bheṃ</i> -:	<i>bhṃ</i> -	<i>bhu</i> -	<i>bhuṃ</i> -
rt. <i>gem</i> -:	<i>gm</i> -	<i>gm̐</i> -	<i>gṃm</i> -
rt. <i>ster</i> -:	<i>str</i> -	<i>st̐r</i> -	<i>st̐rr</i> -
			<i>st̐r̥</i> -

Examples for the three last named roots are:

Rt. *bheṃ*- 'become'. *bhṃ*-: Skr. *á-bhṃ-a*-, Gr. *ὑπέρβαλον*- fr. **ύπερ-φF-ιαλον*- (§ 166), O.Bulg. *bě* fr. **bṃ-ē* (§ 184). *bhu*-: Gr. *φί-σι-ς*, Lat. *fu-tūru-s*. *bhuṃ*-: Skr. gen. sg. *bhuv-ās*, Gr. *ἐφύην*. *bhū*-: Skr. *bhū-ti*- *bhū-man*-, Gr. *φῦ-μα*.

Rt. *gem*- 'go'. *gm*-: Av. 3. sg. act. *γm-a-ḥ*, O.Pers. 3. sg. mid. *a-gm-a-tā*. *gm̐*-: Skr. *ga-tā-s*, Gr. *βα-τό-ς*, Lat. *in-ven-tu-s*. *gṃm*-: Skr. *gam-ā-mi*, OHG. *kom-an*. *gṃ̐*-: Skr. *á-gā-ta*, Gr. *ἔ-βά-τε*.

Rt. *ster*- 'spread, strew'. *str*-: Lat. *str-uere*. *st̐r*-: Skr. *st̐r-tā-s*, Gr. *στρα-τό-ς*. *st̐rr*-: Skr. pf. mid. *ti-stir-ē* *ti-stir-anā-s*, O.Bulg. 1. sg. pres. *st̐r-a*. *st̐r̥*-: Skr. *st̐r-ṇā-s*, Gr. *στρο-τό-ς* *στόρνυμι* (§ 611), Lat. *strātu-s*.

The parallelism between *-ī*, *-ū*, *-ṛ̥*, *-ṛ̥* etc. on the one hand and *-iḥ*, *-uḥ*, *-ṇn*, *-ṛr* on the other is clearly seen e. g. in such forms as Skr. *bhā-ś* 'world' gen. *bhuv-ās*, *bhrā-ś* gen. *bhruv-ās* Gr. *ὁ-φρῦ-ς* gen. *ὁ-φρῦ(F)-ος* and Skr. *pūr* fr. **pūr̥ś* (Indg. **pl̥-s*) gen. *pur-ās* (Indg. **pl̥-ós* or **pl̥-és*), *gō-śā-s* 'oxen gaining' (Indg. **-sṃ̐-s*) gen. *gō-śan-as* (Indg. **-sṃn-ós* or **-sṃn-és*) etc. See §§ 253. 306. Gr. *χρῶς* also seems to be a noun of this kind, whose gen. *χρῶός* in that case has taken the place of **χρῶ-ός* **χαρ-ός* (s. §§ 294. 306), further (*ὠμο*-)*βρῶς* ('swallowing raw') = Skr. (*muhur*-)*gír* ('swallowing suddenly'), Indg. **gṛ̥-s*; *-βρωῖ-ος* a new formation like *χρωῖ-ός*.

§ 313. That both phases of the weak grade — here as in all other ablaut-series — originated in the different degree of the stress-accent (§ 667, 3), is a probable result of Osthoff's investigation (Morph. Unt. IV).

The sound-form to which we have given the name of weak grade *b*., shows a less degree of weakening and regularly appears wherever a secondary stress remained upon the syllable. The phase *a*. originated whenever through any circumstances, connected with position in the sentence, the syllable lost its secondary accent and became accentless. Such circumstances are priority of another member of a compound, the prefixing or suffixing of a formative syllable etc.

That position of a syllable at the beginning of a sentence or member of a sentence occasioned secondary accent, may be concluded from the numerous double forms as Av. *fra-bd-a*- and Skr. *pad-ás*; Av. *haurva-fš-u-* 'the whole beast' (*-fš-* from **-ps-*, § 473) and *pasu-* Skr. *paś-ú-* 'beast' (Indg. **pek-ú-*); Skr. *á-bhv-a-* 'contrary to all existence, monstrous' and gen. *bhuv-ás*; *su-bhru-*š 'having a beautiful brow' and *bhrú-*š 'brow'; *gō-ghn-á-s* 'cow killer' and *ghan-á-s* 'destroyer'; *á-gr-u-š* and *gurú-*š (§ 290); Gr. *πολύ-τλᾱς* and *τάλᾱς*. We may probably assume also that forms like **gná-* (Ved. *gná-*, O.Ir. gen. sg. *mna*), **klutó-s* (Skr. *śrutá-s*, Gr. *κλυτός* etc.), **stṛtó-s* (Skr. *stṛtá-s*, Gr. *στρωτός*) beside **gṛnā-* (Ved. *gund-*, Bæot. *βανᾶ*, O.Icel. *kona*), **klūtó-s* (OHG. *hlūt*), **stṛtó-s* (Gr. *στρωτός*, Lat. *strātu-s*) originally had their position regularly in such combinations as **sá gná* 'this wife', **tóm klutóm* 'this renowned man' (= *τὸν κλυτόν*). Naturally as soon as accentless and secondary accented forms were firmly established levelling took place, e. g. Skr. *prá-pada-m* 'point of the foot' *ánaṣṭa-paśu-š* 'he who loses nothing from his herd' *a-guru-š* 'not heavy' beside the more archaic Av. *fra-bda- haurva-fš-u-* Skr. *á-gru-š*.

It is worth noticing how double forms have been often called into use for euphonic reasons and through the striving after etymological clearness. In forms like **peqtó-s* 'cooked' **peqtí-s* 'cooking' (Skr. *paktá-s* *paktí-š*, Gr. *πεπτός* *πέψις*, Lat. *coctu-s* *coctiō* from **quecto-s* **quectiō* §§ 172. 431 a), **spektó-s* 'spied' (Skr. *spaṣṭá-s*, Lat. *spectu-s*), a generalisation of the secondary accented form took place in the system of verbal forms belonging to one unity, since **pqtó-s* **spktó-s* etc. had become obscure

by their modification; **pqtó-s* is however perhaps still represented by Gr. *ό-πτό-ς* with prothetic vowel. Of the double forms prim Ar. **z-dhí* and **az-dhí* 'be' (rt. *es*-) Skr. generalised the second form in spite of *s-más s-thá s-tá* etc., since **dhí* from **zdhí* was too indistinct; from **azdhí* came regularly *ēdhí* (§ 591); the first form was retained by Iranian, Av. *z-dī*. If a combination of consonants preceded formative syllables ending in *i*, *u*, nasal or liquid, the antesonantal secondary accented form was often generalised. Thus we have **bhrū-* beside **bhrū-* 'brow', but no **bhrū-* beside **bhrū-*, only **sru-* not **sru-* beside **sru-* ('flow') (Skr. *á-susruv-a-t*, Gr. *ἐρρύη*), only *kli-*, not **kli-* beside **kli-* ('lean') (Skr. *śi-śriy-ē*, Gr. Hom. *κί-κλί-εται*). Compare further postconsonantal **-nuu-ñti* in Skr. *śak-nuv-ánti* Gr. *ἀγ-νύ-αναι* with Skr. *śak-nu-más* Gr. *ἄγ-νυ-μεν* and with Skr. *ci-nv-ánti*, the Skr. gen. sg. *várt-man-as* (prim. f. **uert-myn-os* or *-es*) with the loc. pl. *várt-ma-su* (prim. f. **uert-mṇ-su*) and the gen. sg. *ná-mn-as*. Cf. §§ 117. 120. 153. 159.

Rem. The question as to how the two phases of the weak grade developed phonetically from the forms of the strong grade, has received different answers and is even now not ripe for settlement. We may refer to the latest discussions by Hübschmann loc. cit. p. 181 ff. and Bremer Paul-Braune's Beitr. XI 264. 267.

Specially deserving of attention is the circumstance that we may very often be in doubt as to whether we should refer a secondary accented form of the weak grade of a root to the *e*- or *ē*-series, e. g. *pl-* 'fill' (§ 306) *gi-* 'live' (§ 37) to *pel-* *gei-*, or to *plē-* (Lat. *plē-tu-s*, Skr. *prā-tá-s*) *giē-* (Gr. *ζῆ* from **ζῆ*, Av. *jyā-tu-š* 'life') just as the optative suffix *-i-* stands to the strong form *-iē-*. Cp. Hübschmann loc. cit.

§ 314. The strong grade.

On the grades *e* and *o* there is nothing to add here to the observations in § 311.

The phases *ē* and *ō* present difficulties in so far as in the case of many forms with *ē* and *ō* in the separate languages the question arises whether they first obtained their long vowel in the period after the Indg. prim. period had broken up, or whether the long vowel was inherited with the rest of the ablaut.

Forms with such an old *ē* *ō* were cited in § 311. Others are nom. Gr. *Ζεύς* from **djēus* (§ 611) Skr. *dyáuṣ* 'sky'; Lat.

vōx 'voice' Skr. *vāk* 'speech'; Gr. *δυσ-μενής* 'evil disposed' Skr. *dur-manās* 'downcast'; part. perf. act. Gr. *εἰδ-ώς* from **εἰδ-φώς* Av. (Gāp.) *vīd-vā*. Also old inherited forms or at any rate modelled on old inherited types were Gr. *φύρ κλώψ σκώψ*, Lat. *fūr*; with these go as denominatives the Gr. verbs *κλωπάομαι* *τροπᾶω* *πιωτάομαι* etc.

Rem. Observe that the *ē* of forms of the weak perf. stem as Lat. *sēdimus* Goth. *sētum* from rt. *sed-* 'sit' have nothing to do with the *ē* of the strong grade. *ē* arose here from *ē* by lengthening, *sēd-* from **se-zd-* = orig. **se-s(e)d-*. See §§ 590. 591. 594 and the accidence. The same reduplicated root-form was apparently at the basis of many non-perfect verbal forms and noun formations which for the most part were formed later from the perfect. Thus Lith. *sēdmi sēdžiu* O.Bulg. *sēzda* 'I sit' Lat. *sēd-ēs sēd-āre* to perf. Lat. *sēd-imus*; Armen. *mit* 'sense' Gr. *μῆδομαι* 'I devise' OHG. *māza* 'a measure' to perf. Goth. *mēt-um* O.Ir. *ro mid-ar* 'judicavi' from rt. *med-* (Gr. *μέτω* Goth. *mita* Lat. *modu-s* etc.); Lat. *tēgula* Lith. *stėgiu* 'I thatch a roof', rt. *steg-*; Goth. *anda-nēms* 'pleasant', rt. *ncm-*; etc. How far the assumption of such origin for the *ē* should extend, is certainly still doubtful. Cp. the author, *Morph. Unt.* IV 414, *Osthoff Zur Gesch. d. Perf.* 82 f. 110 f.

We have further to distinguish according to § 307 rem. 2 the *ē* and *ō* which have arisen by contraction. Especially to be mentioned here is the *ē* in the forms of roots beginning with a vowel, as *ed-* 'eat' *es* 'be' etc. In the perf. stem *ēd-* (Lat. *ēd-imus* Skr. *ād-imā* etc.) *ē* arose by contraction of the *e* of the root with the *e* of the reduplication, in the imperf. stem *ēd-* (Skr. *ād-am* by contraction of the *e* of the root with the augment *e* (§ 114). From this now originated to some extent a new root-form *ēd-*, from which came Lat. *ēs-t* *ēs-u-s*, Lith. *ēd-mi* *ēd-i-s*, Goth. *uz-ēta* etc., and which called into being Gr. *ἔδ-ωδ-ι* after the analogy of the ablaut *ē*-series. Cp. author loc. cit., *Osthoff loc. cit.* 122 ff. 148 ff.

On the other hand it must remain quite undecided if many other *ē* and *ō* forms were proper ablaut vowels of the *ē*-series i. e. whether directly inherited or introduced by analogy. Besides sporadic forms as Gr. *ἱπαρ* Av. *yākar*^e (beside Lat. *jecur* Skr. *yakft*) 'liver' the Skr. Vṛddhi-vowels come especially into consideration. It is quite conceivable that e. g. the *s*-aorists *ā-bhāut-sam* (rt. *bheṣdh-*) *ā-drāk-ṣam* from **a-dārḱ-ṣam* § 259 (rt. *derk-*) *ā-jāi-ṣam* (rt. *geṣ-*) *ā-bhār-ṣam* (rt. *bher-*) represent an Indg. aorist formation with long root-vowel; cp. Lat. *rēxi tēxi*, O.Bulg. *nēsū rēchū basū* and observe that in Gr. *ἔψευσα ἔτερεσα ἔτευνα ἔκρινα* the *e* of the root syllable may have been shortened from *ē* (§ 611). Cp. the accidence.

2. *ē*-series.

§ 315. The scheme is:

Weak grade		Strong grade	
a. unaccented	b. secondary accented	1.	2.
0	<i>a</i>	<i>ē</i>	<i>ō</i> ,

e. g. from rt. *dhē*- 'put, place':

<i>dh-</i>	<i>dhā-</i>	<i>dhē</i>	<i>dhō-</i>
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Wg. a. *dh-* : Skr. 1. pl. *da-dh-mās*, O.Bulg. 1. sg. *deždq* from **de-d-ia* (§ 147), Lith. 3. sg. *děsti* i. e. **dē-d+ti* (§§ 544. 552). — Wg. b. *dhā-* : Skr. part. *-dhi-ta-s hi-tá-s*, 3. sg. aor. *á-dhi-ta*, Gr. *θε-ρό-ς* *ē-θe-ro*, Lat. *crēdi-tu-s* from **crēda-tu-s* § 109 d (Skr. *śrād-dhita-m* neut. 'trusted, believed'). — Str.g. 1. *dhē* : Gr. *τι-θη-μι ἀνά-θη-μα*, Skr. *dá-dhā-mi dhā-man-* neut. 'seat, place', Goth. *ga-dē-þs* OHG. *tā-t* OHG. part. *gi-tān*, inf. Lith. *dē-ti* O.Bulg. *dě-ti*, Lith. fut. *dě-siu*, O.Bulg. aor. *dě-chū*. — Str.g. 2. *dhō-* : Gr. *θω-μό-ς* 'heap', Goth. *dōms* 'judgment', OHG. *tuot* 'does' orig. **dhō-īe-ti*.

From root *sē*- 'throw, sow' : — Wg. a. *s-* : Skr. *s-trī* 'woman'? (cp. Lat. *sa-tor* 'begetter'). — Wg. b. *sā-* : Lat. *sa-tu-s*, Gr. *ἐ-ρό-ς*, *ἀφ-έ-την* *ē-sav*. — Str.g. 1. *sē* : Gr. *ἱ-η-μι ἥ-μα*, Lat. *sē-men*, O.Ir. *sē-l* 'seed', Goth. *mana-sē-þs* 'mankind, world' OHG. *sāt* 'sowing', inf. Goth. *saian* OHG. *sāan* (§ 142), pres. Lith. *sėjū* O.Bulg. *sějū*, Lith. pl. *sē-men-s* O.Bulg. *sē-mę* 'seed, sowing'. — Str.g. 2. *sō-* : perf. Gr. Dor. *ἀφ-έ-τω-κα ἀν-έ-ω-σθαι* Goth *sāt-sō*.

From rt. *lēd-* 'let' : — Wg. b. *lēd-* : Lat. *lassu-s*, Goth. *lats* OHG. *laz* 'weary, lazy'. — Str.g. 1. *lēd-* : Goth. *lētan* 'let'. — Str.g. 2. *lōd-* : Goth. perf. *lat-lōt*.

The Gr. *ε* (Wg. b.) in *θε-ρό-ς*, *ἐ-ρό-ς* etc. had taken the place of regular *a*, see § 109 c.

Skr. *da-dh-mās* bears the same relation to *dhi-ṣvā* (imper., cp. Gr. *θέ-ο*) as Av. *haurva-fš-u-* does to *pas-u-* Skr *paś-ú-* (§ 313 p. 251), that is, the unaccented weak grade phase in *da-dh-mās* was occasioned by the prefixing of the reduplicated syllable. Greek *τι-θε-μεν* was a new formation for **τι-θ-μεν*.

Other examples of this ablaut-series in Hübschmann loc. cit. 71 ff.

3. *ā*-series.

§ 316. The scheme is:

Weak grade		Strong grade	
a. unaccented	b. secondary accented	1.	2.
0	ə	ā	ō.

From rt. *bhā*- 'speak': — Wg. b. Gr. *φα-μὲν*, Lat. *fa-teor*. — Str.g. 1. Gr. *φα-μι*, Lat. *fā-ma fā-bula* (Armen. *ba-n* 'λόγος' here or to wg. b. ?). — Str.g. 2. Gr. *φω-νή*.

From rt. *stā*- 'stand': — Wg. a. *st-*: Skr. weak stem of the part. perf. act. *ta-sth-úṣ-* (e. g. fem. *tasthúṣī*), *savyē-ṣṭhar-* '(the warrior) who stands on the left (of the charioteer)' Av. *raṣae-štar-* 'standing on the war-chariot, warrior' from **-sth+tar-*. — Wg. b. *stə*: Skr. 3. sg. aor. *á-sthi-ta*, part. *sthi-tá-s*, *sthi-ti-ṣ* 'a standing', Gr. *στα-τός* *στά-σις* *στα-τήρ*, Lat. *sta-tu-s sta-tiō*, Goth. *staþs* 'stead, place', Lith. *sta-taũ* 'I place', pl. *stā-klės* 'loom', O.Bulg. *sto-jq* 'I stand'. — Str.g. 1. *stā*: Skr. aor. *á-sthā-m*, *sthā-man-* 'standing-place, strength', Gr. *ἵ-στη-μι ἔ-στη-ν στή-μων*, Lat. *stā-men Stā-tor*, O.Ir. *-tau* 'am' from **stā-χō*, Goth. *stō-ma* 'basis, substance' *stōls* 'stool, seat', Lith. *pa-stó-ju* 'I become something' *sto-mũ* 'stature', O.Bulg. *sta-jq* 'I stand'. — Str.g. 2. *stō-* cannot be established with certainty, it may be represented by Skr. perf. 3. sg. *ta-sthāu*.

Skr. *savyē-ṣṭhar-*: Gr. *στα-τήρ* = Av. *haurva-fš-u-*: Skr. *paś-ú-* (§ 313 p. 251).

Other examples of this ablaut-series in Hübschmann loc. cit. 91 ff.

4. *ō*-series.

§ 317. The scheme is:

Weak grade		Strong grade
a. unaccented	b. secondary accented	
0	ə	ō.

From rt. *dō*- 'give' : — Wg. a. *d*- : Skr. *dēvā-t-ta*- 'god-given' *bhāga-t-ti*-š 'gift of fortune' part. *da-t-tā-s* 1. pl. pres. *da-d-mās* 3. pl. perf. *da-d-ūr*, Lat. *de-d-ī* probably = Skr. *du-d-ē*, 2. pl. Lith. *dūste* from **dū-d+te* O.Bulg. *du-s-te* from **dā-d+te* 3. pl. *da-d-eti*. Wg. b. *də*- : Skr. *dī-ti*-š 'possession' 3. sg. aor. *á-di-ta*, Armen. *ta-mē* 'damus', Gr. *δά-νός*, *δο-τό-ς* *δό-σι-ς* *δο-τήρ* *ἰ-δο-το*, Lat. *da-tu-s* *da-tor* *da-mus*, Lith. part. perf. act. *dā-v-s*. — Str.g. *dō*- : Skr. *dā-dā-mi* *á-dā-m* *da-dāu*, Armen. *e-tu* 'I gave' *tu-r* 'gift', Gr. *δί-δω-μι* *δώ-σω* *δώ-ρο-ν* *δώ-τι-ς*, Lat. *dō-nu-m* *dōs*, inf. Lith. *dū-ti* O.Bulg. *da-ti*, O.Bulg. *da-rū* 'gift'.

From rt. *pō*- 'drink' : — Wg. b. *pə*- : Gr. *πο-τό-ν* *πό-σι-ς* *πο-τήρι-ον*. — Str.g. *pō*- : Skr. *pā-tār*- 'drinker', Gr. *πῶ-μα* *πέ-πω-κα*, Lat. *pō-tor* *pō-culu-m*.

Gr. *o* (wg. b.) in *δο-τό-ς* *πο-τό-ν* etc. had taken the place of regular *α*; the latter is preserved in *δά-νός*. See § 109 c.

Skr. *dēvā-tta*- *bhāga-tti*- *da-dmās* to Gr. *δο-τό-ς* Lat. *da-tu-s* Skr. *dī-ti*-š like Av. *haurva-fš-u-* to Skr. *paś-ú-* (§ 313 p. 251).

Other examples of this ablaut-series in Hübschmann loc. cit. 99 ff.

5. *α*-series.

§ 318. The scheme is:

Weak grade		Strong grade	
a. unaccented	b. secondary accented	1.	2.
0	(a)	<i>á</i>	<i>ā</i> .

From rt. *ag*- 'drive, lead' : — Wg. a. *g*- : Skr. *pári-j-man*- 'wandering about' *j-mán*- 'path'; here also Gr. *ὄ-γ-μος* 'path' with prothetic *ο*- (as in *ὀ-πρό-ς*, see p. 252)? — Wg. b. *ag*- : Skr. *aj-ás* 'driver' = Gr. *ἀγ-ός*, Skr. *aj-irá-s* 'quick' = Lat. *ag-ili-s* (with transition into the *i*-declension), Skr. pass. *aj-yá-tē*, Gr. part. *ἐπ-αχ-τό-ς*. — Str.g. 1. *ag*- : Skr. *ájāmi*, Armen. *ac-em*, Gr. *ἄγ-ω*, Lat. *ag-ō*, O.Ir. *ag-aim*, O.Icel. inf. *ak-a*. — Str.g. 2. Skr. *ājī*-š 'a race', Gr. *στρατ-ηγό-ς*, Lat. *amb-āg-ēs*.

From rt. *bhag*- 'allot, enjoy, eat' : — Wg. a. *bhq*- : Skr. perf. mid *bhēj-ē*, an irregular transformation (see the accidentence) of

original **bhe-bhq-*. — Wg. b. *bhag-* : Skr. *bhak-tá-m* 'portion, food', Gr. *φαγ-εῖν* 'to eat'. — Str.g. 1. *bhag-* : Skr. *bháj-āmi* 'I allot, enjoy' (in case this had not taken the place of **bhajāmi*, if so, it had wg. b.) *bhága-s* 'distributor, giver of blessings', Av. *baya-* 'god', O.Bulg. *bogŭ* 'god'. — Str.g. 2. *bhag-* : Skr. perf. *ba-bhāj-a*, *bhāg-á-s* 'share, lot'.

From rt. *īāg-* 'honour' : — Wg. a. *īg-* : Skr. part. *iṣ-ṭá-s*, *ṛtv-īj-* 'sacrificing at the regular time'. — Str.g. 1. *īāg-* : Skr. *yáj-āmi*, Gr. *ἱεῖναι ἄγος*; here doubtless also, notwithstanding the suffixal accentuation, Skr. *yaj-ná-s* Gr. *ἰγ-νό-ς* (since we should rather expect *īg-* as wg. b.). — Str.g. 2. *īāg-* : Skr. *ati-yájá-s* 'honouring exceedingly' causat. *yājáyāmi*.

From rt. *daŷ-* 'burn' : — Wg. a. *du-* (*dy-*) : Skr. *du-nó-ti* 'burns, puts to grief'. — Wg. b. *dū-* *duŷ-* : Skr. *dū-ná-s* 'burnt, tortured', Gr. *δύ(ν)-η* 'woe, pain' — Str.g. 1. *daŷ-* : Skr. *dāv-a-s* 'fire-brand', Gr. *δαίω* (from **daF-ŷō*) 'I light up' *δαός* 'fire-brand, torch'. — Str.g. 2. *dāŷ-* : Skr. *dāv-á-s* 'fire-brand', Gr. perf. *δέ-δῃ-ε*, *δαῖF-ιο-ν* *δηίο-ν* (*πῆρ*).

From rt. *aīdh-* 'burn' : — Wg. a. *idh-* : Skr. part. *iddhá-s* 'kindled, pure' *idh-má-s* 'fire-wood', Gr. *ἰθ-αρό-ς* 'serene, pure'. — Wg. b. *īdh-* : Skr. *īdh-r-īya-* 'belonging to the serene sky', Lat. pl. *īd-ūs* scil. *noctēs* 'the clear nights', OHG. *īt-al* 'pure, clear'. — Str.g. 1. *aīdh-* : Skr. *édhas-* 'fire wood', Gr. *αἶθω* 'I kindle', Lat. *aestus aestās*, O.Ir. *aed* 'fire', OHG. *eit* 'rogus, ignis'.

Skr. instr. sg. fem. *nas-ā* nom. du. fem. *nás-ā* Ags. *næs-ðyrlu* ('nostrils') OHG. *nasa* Lat. *nār-ēs* Lith. *nós-i-s* etc., proves the existence of an Indg. noun nom. sg. **nás(-s)* acc. sg. **nás-ŋ* (str.g. 2), gen. sg. **nas-ós -és* (wg. b.) 'nose'.

Other examples in Hübschmann loc. cit. 114 ff.

An unmistakable parallelism exists with the *e*-series. Observe especially also the forms of the nominal suffixes *-ā* : *-a* = *-o* : *-e*, e. g. acc. sg. **ekŷā-m* (Skr. *áśvām*, Lat. *equam*) : voc. **ekŷa* (Skr. *ám̐ba*, Gr. *ρίμ̐q̐ā*, O.Bulg. *ženo*) = acc. sg. **ekŷo-m* (Skr. *áśva-m*, Lat. *equo-m*) : voc. **ekŷe* (Lat. *equē*, Gr. *ἵππε*).

It still of course remains questionable, how the *o* is to be explained which frequently occurs in this ablaut-series, e. g.

Gr. *κόσμος* 'ornament' beside *κέ-κασ-ται* 'is excellent' (Skr. 3. pl. perf. *śā-śād-úr*). See Osthoff in Hübschmann loc. cit. 190 f.

Rem. It seems to me hardly possible to carry out the hypothesis, indicated by Osthoff loc. cit. 191. Cp. e. g. the feminine suffix *-a-* : *-ā-*.

6. *o*-series.

§ 319. The scheme is:

Weak grade		Strong grade	
a. unaccented	b. secondary accented	1.	2.
o?	(o)	ó	ō.

From rt. *oq-* 'see': — Wg. b. and str.g. 1. *oq-*: Gr. *ὀπτέο-ν ὄψι-ς ὄψομαι ὄμμα*, Lat. *oc-ulu-s*, Lith. *aki-s* O.Bulg. *oko* 'eye'. — Str.g. 2: *ōq-*: Gr. *ὀπ-ωπ-ε ὥψ*.

From root *od-* 'smell': — Wg. b. and str.g. 1. *od-*: Gr. *ὄζει ὀδμή*, Lat. *od-or ol-ō ol-eō*. — Str.g. 2. *ōd-*: *ὄδ-ωδ-ε εὐ-ώδης*, Lith. *ǎdžiū* 'I smell (something)'.

From rt. *bhod-* or *bhodbh-* 'sting, prick, dig': — Wg. b. *bhod(h)-*: Lat. *fossu-s fossa*. — Wg. b. or str.g. 1. *bhod(h)-*: Lat. *fodiō*, O.Bulg. *bodā* 'I sting', Lith. *badaũ* 'I prick'; to which also Gr. *βόθ-ρο-ς βόθ-υνο-ς* 'ditch', in case we may assume that *β* had taken the place of *π* after the analogy of *παθί-ς βένθος* (the root would then certainly be *bhodbh-*). — Str.g. 2. *bhōd(h)-*: Lat. *fōdī*, O.Bulg. *basū* aor. (cp. § 314 rem. p. 253), *badajā* 'I sting'.

Wg. a. would exist in Gr. *ἀντι-χρῶ* 'right opposite, straight on', wg. b. in the form *ἀντι-χρῶ*, if this adverb is really related to *ἀντι-χρονῶ* 'I push back, stop' and this latter belongs to the *o*-series (cp. Osthoff Morph. Unt. IV 267 f. 345).

Other examples in Osthoff loc. cit. 343 ff. and in Hübschmann loc. cit. 167 ff.

EXPLOSIVES.

§ 320. The so-called stop-consonants are in reality glides, implosive and explosive. The transition does not take place between two sounding elements, but between a sound and a

moment of absence of sound; it is of secondary importance that the mediae are mostly pronounced 'voiced'. If we regard language as a genetic product, the moment of the absence of sound is the material part in explosives which corresponds to the nucleus of the other elements of language. But it can of course only be heard by observing the implosive and explosive glides, and these are of paramount importance for the comprehension of language as an acoustic phenomenon. At all events the names stop-sound and explosive-sound only imperfectly indicate the nature of these elements of language. Cp. Flodström Bezzenberger's Beitr. VIII 1 ff.¹⁾

§ 321. We consider the history of the Indg. explosives from two points of view, in as much as we ask ourselves the questions: what has been their fate as regards their place of articulation and what as regards their form of articulation?

According to the place of articulation we have to distinguish four classes of Indg. explosives:

1. Labials, more accurately bilabial or labio-labial (*p*-sounds): stop between the upper and lower lip;

2. Dentals (*t*-sounds): stop through articulation of the fore part of the tongue against the inner wall of the upper teeth or against their sockets;

3. Palatals (*k̄*-sounds): stop through articulation of the middle part of the back of the tongue against the back part of the hard palate, cp. say the *k* in English *kid*;

4. Velars (*q*-sounds): stop through articulation of the hind part of the back of the tongue against the soft palate (velum palatinum), cp. say the *k* in Mod.HG. *kunst*.

Rem. 1. Some use the term gutturals instead of velars. We avoid this name because it is apt to give rise to a confusion of this class of consonants with the palatals (3), since these are likewise often called gutturals. Many call classes 2 and 3 'the two guttural series' of the Indg. primitive language.

Rem. 2. In writing the Indg. prim. forms we employ *k*, *kh*, *g*, *gh* only when we leave it undecided whether the explosive had a palatal or velar articulation, e. g. rt. *kneigh*- § 423.

1) See now also Sievers Phonet. § 33 ff.

These prim. Indg. sounds often left their old place of articulation in the development of the separate languages. The sphere of articulation, into which the sound was transferred, was either one which had already from of old been taken up with the production of explosives, e. g. Lat. *quīnque* O.Ir. *cōic* 'five' fr. Indg. **penqe* (transition of *p*- to a velar, see §§ 336. 339), or was a new one. To these new places of articulation belong:

the labio-dental position: articulation of the lower lip against the upper teeth, e. g. OHG. labio-dental *f* from bilabial *f* from Indg. *p* (§ 342);

the interdental: the edge of the tongue stops up the fissure between the two rows of teeth, e. g. Gr. spirant *θ* (*þ*) from Indg. *dh* (§§ 365. 495);

the cerebral or cacuminal: the tip of the tongue is turned up and drawn back and articulates against the highest part of the dome of the palate, e. g. Skr. *ṭ ḍ ḍh* from Indg. *t d dh* (§§ 352. 355. 358).

Rem. 3. Some finer distinctions, e. g. between postdental and supradental sounds (Sievers *Phonet.* ³ 54 ff.), need not be considered here.

§ 322. According to the form of articulation we must likewise distinguish four classes.

First of all comes into consideration the difference which calls for the division into *tenuis* and *mediae*. Its characteristic feature is the greater or less tension to which the parts of the mouth are put in the formation of explosives, e. g. a more energetic closing and opening of the lips takes place with *p* than with *b*. Hence the names *fortis* and *lenis* are also used instead of *tenuis* and *media*.

The *mediae* may be produced with or without voice (§ 16). In the prim. Indg. period they were probably voiced throughout and remained so almost everywhere, where they did not pass into *fortes*.

The Indg. *tenuis* and *mediae* were pronounced both with and without aspiration. The aspiration is indicated by placing an *h* after the respective sound: *th*, *bh* etc.

In the Indg. primitive period there accordingly existed:

1. unaspirated *tenuēs*, e. g. *t*;
2. unaspirated voiced *mediae*, e. g. *d*;
3. aspirated *tenuēs*, e. g. *th*;
4. aspirated voiced *mediae*, e. g. *dh*.

In the developments of the separate languages the form of articulation suffered numerous changes, to which the name sound-shifting has been given. These changes partly happened in such a manner that the result of the change represents another of the forms of articulation belonging to this class which had been handed down from the Indg. prim. language, e. g. Indg. *dh* became *d* in Iranian, Keltic and Baltic-Slavonic, and *th* in Greek (§§ 481. 495. 524. 542. 549). But in the various stages of the separate developments we also meet with other kinds of sounds in the place of the Indg. explosives, viz.:

affricatae i. e. explosives with a following homorganic spirant, e. g. Arm. *c* from Indg. *ġ* (§§ 409. 484), HG. *pf*, *z* (i. e. *ts*), *ch* (i. e. *kχ*) from Indg. *b*, *d*, *ġ* *g* (§ 533);

spirants (fricatives), e. g. Germanic *f* from Indg. *p* (§ 527 ff.);

h i. e. voiceless vowel (§ 16), e. g. HG. *h* from Indg. *k*, *q* (§ 529);

consonantal vowels, e. g. Armen. *-aur-* from *-atr-* (§§ 360. 483), M.Cymr. *seith* = Ir. *secht* 'septem' (§ 339);

long vowels as representatives of original short vowel + explosive, e. g. O.Ir. *ēn* 'bird' from (O.Bret.) *etn* (§ 518);

nasals e. g. Lat. *mn* from Indg. *pn* (§ 500);

liquids, e. g. Lat. *l* from *d* (§ 369).

The Indg. sound also often entirely disappeared, e. g. *p* in Keltic (§ 339).

Lastly it may be pointed out that the explosive, after it had become a sound of another kind, not rarely became again an explosive later, e. g. Indg. **rudhró-* 'red' (Gr. *ἐρυθρό-ς*) became Lat. *rubro-*, the combination *-dhr-* having passed through the stages *-thr-*, *-ĥr-*, *-fr-*, *-br-* (§ 509). It thus happened

sometimes that the prim. Indg. form and place of articulation were reached again, e. g. in OHG. *fater* 'father', whose *t* represents Indg. *t* (Skr. *pitā* Gr. *πατήρ* etc.), which had become *t* after having passed through the various stages *p*, *ḍ*, *d* (§ 528 ff.).

§ 323. The system of the Indg. explosives was accordingly the following:

		Places of articulation			
		labial	linguo-palatals		
			dental	palatal	velar
forms of articulation	ten.	<i>p</i>	<i>t</i>	<i>k̑</i>	<i>q</i>
	voic. med.	<i>b</i>	<i>d</i>	<i>g̑</i>	<i>g</i>
	ten. asp.	<i>ph</i>	<i>th</i>	<i>k̑h</i>	<i>qh</i>
	voic. med. asp.	<i>bh</i>	<i>dh</i>	<i>g̑h</i>	<i>gh</i>

We now consider the history of these explosive sounds singly, beginning first of all with their places of articulation. We shall not treat the *tenuis aspiratae* until section 2. (B., §§ 475. 553). These sounds seem to have been comparatively rare in the prim. Indg. period and present no special peculiarities in their place of articulation as compared with the other explosives.

A. THE EXPLOSIVES ACCORDING TO THEIR PLACE OF ARTICULATION.

1. Labial explosives.

Indg. primitive period.

§ 324. *Tenuis p*. **pə-tér*- 'father': Skr. *pitār*- Armen. *hair* Gr. *πατήρ* Lat. *pater* O.Ir. *athir* Goth. *fadar*. **pro* 'fore, before': Skr. *pra*- Gr. *πρό* Lat. *prōd* *prō* O.Ir. *ro* Lith. *pra*- O.Bulg. *pro*-. Rt. *sup*- 'sleep': Skr. *svāpiti* 'sleeps' *svāpna-s* 'sleep, dream', Armen. *ḫun* (gen. *ḫnoy*) 'sleep' (*k̑*- from *sy*-, see

§ 162), Gr. ὑπνο-ς 'sleep', Lat. *sopor somnu-s*, O.Ir. *suan* 'sleep' (§ 339 rem.), Ags. *swefan* 'to sleep' O.Icel. *svefn* 'sleep', Lith. *sāpna-s* 'dream' O.Bulg. *sūpati* 'to sleep' *sūnū* 'sleep'. **sērpō* 'I creep, crawl' : Skr. *sārpāmi* Gr. ἑρπω Lat. *serpō*. Rt. *spek-* 'spy' : Skr. *spāś-* 'spy, watchman', Lat. *cōn-spiciō au-spez*, OHG. *spehōn* 'to spy'.

Suffixal elements with *p* seem not to have existed in the prim. Indg. period, if we must not put *p* here in certain cases where it is usually regarded as 'root-determinative', e. g. *sthāp-āyāmi* 'I cause to stand, erect' OHG. *stabēn* 'to be stiff' *stab* 'staff', from the root *stā-*.

§ 325. Media *b*. This sound occurred more rarely in the Indg. prim. period than any of the other explosives. **pib-* or perhaps **bib-* 'drink' : Skr. *pibāmi* O.Ir. *ebaim* (prim. Kelt. **pibō*, § 339) Lat. *bibō* 'I drink', possibly a reduplicated form; its relation to the root *pō-* with the same meaning (§ 317) is not clear (for an uncertain conjecture see Osthoff Morph. Unt. IV 43). Rt. *lab-* : Skr. *rāmbatē lāmbatē* 'hangs down loosely, sinks down', Lat. *lābitur*. Rt. *bar-bal-* (cp. § 282 on *ger-gel-*) : Skr. *balbalā-karōmi* 'I stammer', Gr. βάρβαρο-ς, Lat. *balbus balbūtire*. *-*bd-*, unaccented weak grade form to *ped-* 'foot' (§§ 311. 469, 2) : Skr. *upa-bd-ā-* 'a stamping, trampling', Gr. ἐπί-βδ-αι 'day after the festival' (cp. *πεδά* 'on foot, next afterwards, after', Armen. *het yet* 'behind, after, with'). Root-form *dheyb-* : O.Ir. *fu-domain* (compar. *fu-dumnu*) Cymr. *dwfn* 'deep' (prim. Kelt. -*bn-*, § 520), Goth. *diups* 'deep' MHG. *tümpfel* 'pool', Lith. *dubù-s* 'deep, hollow' *dumburỹs* 'a hole in the ground filled with water' *daubà* 'ravine, defile' O.Bulg. *dūbrī* 'dale, ravine'; beside which *dheyp-* in Ags. *dýfan* 'to dive' OHG. *tobal* 'a hollow in a forest', O.Bulg. *duplī* 'hollow' (§ 221 p. 188 f. § 469, 7). Cp. §§ 328. 331. 334. 337. 340. 343. 346.

b seems not to exist in suffixal elements.

§ 326. Media asp. *bh*. **bhērō* 'I bear, carry' : Skr. *bhārāmi* Armen. *berem* Gr. φέρω Lat. *ferō* O.Ir. *berim* Goth. *baira* O.Bulg. *beraq*. **bhrū-* **bhruy-* 'eye brow' (§ 312) : Skr. *bhrū-* Gr. ὀφρῦ-ς Mid.Ir. gen. du. *brúad* OHG. *brāwa* Lith. *bruv-i-s*

O.Bulg. *brŭv-ŕ*. **nébhos* n. 'cloud, atmosphere': Skr. *nábhas* Gr. *νέφος* Lith. *debes-ŕ-s* (with unexplained *d-* for *n-*) O.Bulg. *nebo*, cp. also Gr. *νεφέλη* Lat. *nebula* O.Ir. *nēl* (fr. **neblo-*) OHG. *nebul* 'cloud, fog'. **ġombho-s*: Skr. *jámbha-s* 'tooth', Gr. *γόμφος* 'tooth', OHG. *chamb* 'comb', Lith. *žamba* 'mouth' O.Bulg. *zqbŭ* 'tooth'.

Formative suffix of noun stems *-bho-*: Skr. *vr̥ṣa-bhá-s* *vr̥ṣa-bhá-s* 'bull' Gr. *ἔλα-φο-ς* 'stag' *ἔρι-φο-ς* 'buck'. *-bh-* in case suffixes: Skr. instr. pl. *-bhiṣ* etc., Armen. instr. sg. *-b* instr. pl. *-bē*, Gr. *-φι(ν)*, Lat. *-bus*, *ti-bī* *nō-bīs*, O.Ir. dat. pl. *-b*, O.Bulg. *te-bē* 'tibi'.

Aryan.

§ 327. Indg. *p*. Skr. *pṛchāmi* Av. *per'sāmi* 'I ask' O.Pers. 2. sg. imper. *parsā*: Lat. *poscō* from **por(c)-scō* (§ 269), OHG. *forsca* 'question', rt. *prek-* (*pr̥k-*). Skr. *nāpāt* Av. *napā* O.Pers. *napā* 'descendant, grandchild': Gr. pl. *νέποδες* 'children' (with *δ* instead of *τ* after the analogy of *πόδες* through the resemblance of the nom. sg. **νεπως* to *πώς* 'foot'), Lat. *nepōs*, Mid-Ir. *niæ* (gen. *niath*) 'sister's son', OHG. *nefo* 'nephew, relation'. Skr. *spádś-* Av. *spas-* 'spy': Lat. *au-spex*.

The change of organ remains unclear in Skr. *ṣṭhīv-* *ṣṭhyā-* 'spit' (pres. *ṣṭhīvāmi* part. *ṣṭhyūtá-*): Gr. *πτέω* from *(*σ*)*π̥t̥h̥u-* (§ 131 p. 119), Lat. *spuō*, Goth. *speiva*, Lith. *spiáu-ju*.

In Iranian *p* became *f* before consonants, and was probably pronounced as a labio-dental, e. g. Av. O.Pers. *fra-* = Skr. *pra-* 'before', see § 473, 1.

§ 328. Indg. *b*. Skr. *buk-kāra-s* the roaring of a lion: Gr. *βύκρης* 'howling', Lat. *būcina* 'a crooked horn' or 'trumpet', O.Bulg. *bučati* 'to bellow'. Skr. *sabar-* 'nectar': OHG. *saf* Ags. *sæp* 'juice'; rt. *sab-* was perhaps a secondary form of *sap-* in Lat. *sapiō* (§ 469, 7). Skr. *upa-bd-á-* 'a stamping, trampling', Av. *upa-bd-a-* 'foot', see § 325. Upon **ab-bhīas*, dat. abl. pl. from *ap-* 'water', rests Av. *aiwyō*; on Skr. *adbhyás* *adbhīṣ* see rem. 2. Cp. § 325.

Rem. 1. Prim. Ar. *b* in the combination *bđh* = *bh+t*, as Skr. *dṛbđhá-* 'wound, twisted', Av. *der'wāa-* m. 'a twist, plait' (for *w* from *b* see § 478),

from rt. *derbh-*. It has not been determined how this combination was pronounced in the Indg. prim. period, see § 552.

Rem. 2. The *d* in Ved. *adbhiṣ*, instr. pl. from *ap-* 'water', and in *sq-sṛdbhiṣ*, instr. pl. from *sq-sṛp-*, appellation of ten divinities and the offerings dedicated to them, cannot phonetically have taken the place of *b*. It was probably caused by the analogy of *nádbhiṣ* from **nabd-bhiṣ* (stem *napt-* 'descendant'). See Osthoff Zur Gesch. d. Perf. 600 f.

§ 329. Indg. *bh*. Skr. *bhāv-ati* Av. *bavaiti* 'becomes, is' O.Pers. 3. sg. conj. *bavātiy*, Skr. *bhū-mi* Av. *bū-mi* O.Pers. *bu-mi-*, 'earth': Gr. *φύ-σις* 'nature', Lat. *fuam futūru-s*, O.Ir. *buith* 'existence', OHG. *būan* 'to dwell, build', Lith. *bū-ti* O.Bulg. *by-ti* 'to be', rt. *bhey-*. Skr. *bhrāta* Av. *brāta* O.Pers. *brāta* 'brother': Arm. *elbair* (§§ 263. 360) Gr. *φράτωρ* Lat. *frāter* O.Ir. *brathir* Goth. *brōþar* Lith. *broter-ėli-s* (demin.) O.Bulg. *bratrū* 'brother'. Skr. *abhi* Av. *aiwi* (Gāp. *aibī*) O.Pers. *abiy* 'hither': to Goth. *bi* OHG. *bī* 'by'. 3. pl. perf. Skr. *babhr-úr* Av. *bawr-ar*^e, Indg. **bhe-bhr-*, from rt. *bher-* 'bear, carry'.

Armenian.

§ 330. Indg. *p*. Initially mostly *h-* before vowels. *hing* 'five': Skr. *pāñca* Gr. *πέντε* Lith. *penkì*. *heři* 'distant': Skr. *pāra-s* 'more distant, on the other side', Gr. *πέραν* 'on the other side', O.Ir. *ire* 'ulterior', Goth. *fairra* 'distant'.

Rem. For this *h* we sometimes find *y*, e. g. *yauray* beside *hauru* 'step-father', to Gr. *πάτερ*; 'uncle'; *yi-sun* 'fifty' beside *hing* 'five' (Hübschmann Ztschr. d. deutsch. morg. Ges. XXXV 656, Arm. Stud. I 45. 74). The phonetic relation is not clear. With loss of *h-*, *otn* 'foot' pl. *ot-ē* Gr. *πόδ-ες*.

ev 'and, also': Skr. *āpi* 'also', Gr. *ἐπι* 'on, to'. *evtn* 'seven': Skr. *saptā* Gr. *ἑπτά* Lat. *septem* O.Ir. *secht n-* Lith. *septyni* 'seven'.

ep'em 'I cook' probably to Greek *ἔψω*. *p'oit* (gen. *p'utoy*) 'σπονδή', to *σπονδή* (Hübschmann Ztschr. d. d. m. Ges. XXXVI 117).

§ 331. Indg. *b*. Here belongs perhaps *bu* and *bu-ēc* 'owl': Gr. *βύα-ς βύζα* (βύζα ?) 'horn-owl', Lat. *būbō*; probably an onomatopoeic formation; in this case *b* would not have been shifted to a tenuis like the other Indg. mediae (§ 484).

§ 332. Indg. *bh.* *ba-n* (gen. *bani*) 'λόγο-ς': Gr. *φη-μι* 'I say' *φω-νή* 'voice', Lat. *fa-teor fa-ma.* *albeur* 'source, spring' (§ 263): Gr. *φοέαρ* 'well, fountain'. *arbi* 'I drank' *arb* 'a drinking-bout': Gr. *ροφέω* 'I sip', Lat. *sorbeō*, Lith. *srebiù* 'I sip', rt. *srebh-*; Armen. *arb-* and Lat. *sorb-* from Indg. *sybh-* (§§ 291. 295). *surb* 'clean, pure': Skr. *śubh-rá-s* 'bright, smart', cpf. **kubh-ró-s* (§ 263).

Suffix *-a-vor* e. g. *lus-a-vor* 'clear': Gr. *λευκο-φόρος*. Instr. sg. *mardo-v* pl. *mardo-vē* (from *mard* 'man') beside *dster-b dster-bē* (from *dustr* 'daughter'), cp. § 326.

Greek.

§ 333. Indg. *p.* *πέτ-ο-μαι* 'I fly' aor. *ἐ-πτ-ό-μην*: Skr. *pātāmi* 'I fly' aor. *āpapta-m*, Lat. *petō*, O.Bret. *etn* O.Ir. *ēn* (§ 518) 'bird', OHG. *fedara* 'feather'. *πλέ(φ)-ω* 'I swim': Skr. *plāvātē* 'swims', Armen. *luana-m* 'I wash', Lat. *pluit*, O.Ir. *luath* 'quick', OHG. *flewen flouwen* 'to rinse, wash', Lith. *pláuju* 'I rinse' O.Bulg. *plova* 'I sail'. *ὑπεῖρ ὑπέρ* 'over': Skr. *upāri* 'above', Lat. *s-uper*, Goth. *ufar* 'over'. *τέρπ-ω* 'I refresh, delight': Skr. *tarpāyāmi* 'I satiate, satisfy', Lith. *tarpà* 'a thriving' Pruss. *en-terpo* 'it is of use'.

πτ became *ττ* in Thessalian and Cretan, e. g. Thess. *Ἀεττί-ναιος*, to Att. *Ἀεπτινήης*; *ἄττις* from *ἀπ τᾶς*; cp. Thess. *Ἀτθόνειτος* = *Ἀφθόνητος*, Cret. *ἔγρατται* = Att. *γέγραπται*, to *γράφω* 'I write'.

§ 334. Indg. *b.* *βαβάζω* 'I chatter' *βαμβαίνω* 'I stammer' *βαμβαλνίζω* 'I chatter with the teeth': Lat. *babulu-s* 'chatterer', Mod.HG. *babbeln pappeln*. *βδέω* 'I break wind' represents Indg. *bzd-*, weak grade form to *pezd-*: Sloven. *pezdēti* 'to break wind' Pruss. *peisda* 'buttock', Lat. *pēdō* from **pezdō* (§ 594), cp. *bd-* weak grade form to *ped-* § 328. Cp. §§ 325. 328. 331.

§ 335. Indg. *bh.* *φαγεῖν* 'to eat': Skr. *bhājāmi* 'I allot, enjoy' *bhaktā-m* 'portion, food' *bhāga-s* 'sharer out' Av. *baya-* 'god' O.Bulg. *bogŭ* 'god', rt. *bhag-*. *ὀμφαλό-ς* 'navel': Skr. *nābhi-ṣ* 'navel' *nābhīla-m* 'private parts', Lat. *umbō umbilicu-s*, O.Ir. *imm-lind* 'umbilicum' (§ 525), OHG. *naba* 'wheel-nave' *nabolo* 'navel'.

Pruss. *nabi-s* 'navel, wheel-nave' Lett. *naba* 'navel'. ὀρφανός 'orphan': Armen. *orb* 'orphan', Lat. *orbu-s*, O.Ir. *orbe* 'hereditas', Goth. *arbi* 'inheritance'.

The *f*, which arose from prim. Greek *ph* (*φ*) (§ 495), was first of all bilabial. Since the letter *φ* was employed to represent the *f* which had arisen from *p* (*θ*) in Bœot. and Epirot., *f* = *ph* seems here also to have been labio-dental (see loc. cit.).

Italic.

§ 336. Indg. *p*. Lat. *pāx pangō*, Umbr. *pase* 'pace', Osc. Paakul 'Paculus': Skr. *pāśa-s* 'string, cord', Gr. πῆγνῦμι 'I fasten', MHG. *vuoge* 'joint' Goth. *fahan* 'to seize', rt. *pāk- pāg-*. Lat. *opus*, Umbr. *osatu* 'operato, facito', Osc. *úpsannam* 'operandam, faciundam': Skr. *āpas- āpas-* n. 'work, religious deed', OHG. *uoba* 'holyday' *uobo* 'cultivator of the land'. Lat. *op-* in *op-tineō ostendō* from **ops-tendō*, *ob*, Umbr. *ostendu* 'ostendito, adhibeto', Osc. *úp eísúd* 'apud id': Gr. ἐνί, Skr. *āpi*, Indg. ablaut *e*: *o*. Lat. *caper capra*, Umbr. *cabriner* gen. 'caprini': Gr. κάπρος 'boar', O.Icel. *hafr* 'buck'.

Lat. *quīnque*, Umbr. *pumperias* Osc. *pumperias* 'quintiliae', Osc. Πομπητις 'Quinctius', prim. Ital. **k̑̑eȓ̑k̑̑e*, which arose from **peȓ̑k̑̑e* (Skr. *pāñca* etc.) by assimilation. Lat. *coquō* from **quequō* (§ 172, 3. 431 a), *popīna* is probably borrowed from Osc. (pure Lat. form *coquīna*), prim. It. **k̑̑ek̑̑ō* from **pek̑̑ō* (Skr. *pācāmi*, Gr. πέσσω). On the Umbr.-Samn. *p* from *k̑̑* cp. § 431 a. The similar assimilation of initial *p* exists also in Keltic in the same two words (§ 339), Germanic has it perhaps also in the numeral *five* (§ 444 a). This change is possibly older than the separate history of these languages.

Prim. Ital. *pt* became *ft* in Umbr.-Samn., as *kt* became *xt* (§ 502); Umbr. *ht* from *ft*. Osc. *scriptas* pl. 'scriptae' Umbr. *screihtor* pl. 'scripti' *screhto* 'scriptum'. Cp. Osthoff Zur Gesch. d. Perf. 183.

§ 337. Indg. *b*. Lat. *lūbricu-s*: Goth. *sliupan* 'to slip'. Lat. *lambō*: OHG. *laffan* 'to lick' pret. *luof*; rt. *lab-* would be a secondary form to *lap-* (§ 469, 7), if we may assume

old *p* for Gr. *λάπτω* Armen. *laṣem* 'I lick'. Lat. *labium* probably to Ags. *lipa* m. OHG. *lefs* m. 'lip'; Kluge explains the difference in the root-vowel by assuming that *labium* arose for **lebium* through association with *lambō*. Cp. §§ 325. 328. 331. 334. 346.

§ 338. Indg. *bh*. Lat. *ferō*, Umbr. *ferar* 'feratur', Marruc. *feret* 'feret': Skr. *bhārami* 'I bear'. Lat. *flōs*, Sabin. *Flusare* abl. 'Floralis', Osc. Fluusaí dat. 'Floras': O.Ir. *blath* 'bloom', Goth. *blōma* m. 'flower'. Lat. *ti-bī si-bī*, Umbr. *te-fe* 'tibi', Osc. *t(i)-fei* 'tibi' *sí-feí* 'sibi': cp. Skr. *tú-bhy-am* 'tibi', O.Bulg. *te-bě* 'tibi'. Lat. *albu-s*, Umbr. *alfu* 'alba', Osc. Alafaternum 'Alfaternorum': Gr. *ἀλφός*-s 'white leprosy'. Lat. *amb-itu-s*, Osc. *amfr-et* 'ambiant' (for Umbr. *ambr-* see § 209): Gr. *ἀμφί* Gall. *ambi-* 'circum'.

Rem. How is Lat. *barba*, for which we should expect **farba* (OHG *bart* O.Bulg. *brada*), to be explained? All the attempted explanations known to us, are unsatisfactory.

According to Seelmann (Ausspr. d. Lat. 294 f.) Lat. *f* was, up to the middle of the imperial period, "a hybrid sound, which might equally well be described as an interdental dorsal spirant with bilabial increase of narrowing, as a bilabial spirant with dorso-bidental increase of narrowing", then *f* became labiodental. It seems to follow from the *m* in *amfr-* that *f* was bilabial in Oscan.

Old Irish.

§ 339. Indg. *p*. Apparently nowhere retained as *p* in Keltic.

It was dropped initially in the prim. Kelt. period. O.Ir. *ēn* O.Bret. *etn* 'bird', rt. *pet-* 'fly', see § 333. O.Ir. *il* 'much, manifold', compar. *lia* Mid.Cymr. *Uei*: Skr. *purú-*š compar. neut. *prāyas*, Gr. *πολύς* *πλείων*, Lat. *plūs*, Goth. *filu* 'multum' compar. O.Icel. *fleire fleiri*. O.Ir. *lar* O.Cymr. *laur* Corn. *lor leur* 'pavement': Ags. *flōr* 'house floor' MHG. *fluor* 'cornfield, ground'. *athir* 'father': Gr. *πατήρ*. O.Ir. *orc* 'pig': Gr. *πόρκο*-s Lat. *porcu-s* OHG. *farh farah* Lith. *pařsza-s* 'pig'. O.Cymr. *rit* 'ford', Gall. in *Augusto-ritum*: Av. *peřu-š* 'ford', Lat. *portu-s*, OHG. *furt* (§§ 295. 298).

Intervocalic *p* disappeared at the same period. Mid.Ir. *niē* (gen. *niath*) 'sister's son', Mid.Cymr. *ney nei* (pl. *neyeynt nyeint*) 'brother's or sister's son': Skr. *nāpāt* Lat. *nepōs* (§ 327). O.Ir. *tē* (pl. *tēit*) 'hot' from **te(p)ent-* (cp. § 212): Skr. *tāpati* 'warms, burns', Lat. *tepeō*, O.Bulg. *topiti* 'to warm'.

-pt- probably became *ft—cht* already in prim. Kelt. (cp. Low German *nicht*, *lucht* = OHG. *nift*, *luft*) and thus fell together with Indg. *kt* and *qt* (§§ 436. 517): O.Ir. *-cht-*, Britann. *-it-*. O.Ir. *secht* Mid.Cymr. *seith* Corn. *seyth* Bret. *seiz* 'seven': Skr. *saptā*, Lat. *septem* etc. O.Ir. *necht* O.Corn. *noit* 'neptis': Skr. Ved. *naptī-ś* 'daughter, granddaughter', Gr. ἀνεψιός-ς 'first cousin' (from **ἀνεπτιο-ς*, § 489), Lat. *nepti-s*, OHG. *nift* 'neptis, privigna', O.Bulg. *netijǎ* 'nephew, cousin' from **neptijǎ* (§ 545).

Rem. How was *-pn-* treated? O.Ir. *suan* Cymr. *hun* 'sleep', which undoubtedly belong to Skr. *svāpna-s* etc. (see § 324), point to **sōno-*, this latter may have arisen from **sopno-* through the intermediate stages **sofno-* **sohno-* (cp. § 518), but **sopno-* may represent Indg. **supno-* (cp. O.Ir. *bond bonn* 'solea' Cymr. *bon* 'stem, base' from **bundo-s*, Lat. *fundu-s*, § 50). The historical forms however might also have arisen from **sopno-* through the intermediate stages **sovno-* **soyno-*.

Prim. Kelt. **kʷenokʷe* 'five' = Indg. **penqe*, **kʷekʷ-* 'cook' = Indg. **peq-*. O.Ir. *cōic* (§ 212) O.Cymr. *pimp* Corn. *pymp* Bret. *pemp* 'five'. Mid. Cymr. *popuryes* 'pistrix', O.Corn. *peber* 'pistor' *popei* 'pistrinum'. See § 336.

§ 340. Indg. *b* = prim. Kelt. *b*. O.Ir. *ebaim* 'bibo', Corn. *evaf* 'bibam' from **ebam*: Skr. *pībāmi* (§ 325). *-mn-* from *-bn-* in O.Ir. *fu-domain* 'deep', see §§ 325. 520.

§ 341. Indg. *bh* = prim. Kelt. *b*. O.Ir. *bri* gen. *breg* 'mountain', Gall. *brigi-* (in *Brigiani*, *Are-brigium* etc.): Skr. *bṛh-ánt-* 'great, high', Armen. *barjr* 'high', root form *bṛgh-* (§§ 288. 291). O.Ir. *biu* 'sum', M.Cymr. *bydaf* 'ero', like Lat. *fīō fīs* etc. from Indg. **bhū-ijō*, rt. *bheṷ-* (§§ 170. 175). O.Ir. *com-boing* 'confringit': Skr. *pra-bhaṇḡá-s* 'breaker, bruiser'. O.Ir. *braigim* 'pedo' Gaelic *bruigh-* 'to give a crackling sound, to burst, explode': Lat. *fragor frangō*, Goth. *brikan* 'to break'. Corn. *befer* 'beaver', Gall. *Bibr-ax*: Skr. *babhrú-ś* adj. 'brown', subst. a kind of great ichneumon, Lat. *fiber* OHG. *bibar* Lith. *bėbru-s* (and *bėbru-s*) O.Bulg. *bebrǔ* 'beaver', Indg. **bhe-bhru-s*.

O.Ir. *imb imm* 'around, about', Gall. *ambi-* : Gr. ἀμφί Lat. *amb-* Osc. *amf-r-* (§ 338). Cp. § 525.

Dat. *tri-b* 'tribus' : cp. instr. Skr. *tri-bhīṣ* dat. abl. *tri-bhyās*, to which also Gall. ματρει-βο νημαυσικα-βο 'matribus Nemausicis'. Cp. § 526.

Germanic.

§ 342. Indg. *p*. Goth. *speivan* OHG. *spīwan* 'to spit' : Gr. πρῶω 'I spit' fr. *(σ)πῑῡ-ῑω (§ 131), Lat. *spuō*, Lith. *spīdu-jū* O.Bulg. *plju-jā* (fr. prim. Slav. *(s)pljū-ῑā § 147) 'I spit'. OHG. *spehōn* : Skr. *spāś-* 'spy, watchman', Lat. *cōn-spiciō*, rt. *spek-*.

Goth. *faihu* OHG. *fihu* 'cattle' : Skr. *pāśu* Lat. *pecu* 'cattle', Indg. **péku* n. Goth. *fraihnan* (pret. *frāh*) OHG. *frāgēn* 'to ask' : Skr. *praś-nā-* 'a questioning', Lat. *precēs* pl., *procu-s*, Lith. *praszyti* O.Bulg. *prosi* 'to demand, request', rt. *prek-*. Goth. *hlifan* 'to steal' *hliftu-s* 'thief' : Gr. κλοπή 'theft' κλέπτης 'thief', Lat. *clepō*, rt. *qlep-*. OHG. *nefo* Ags. *nefa* 'nephew' : Skr. *nāpāt* etc., see § 327. Goth. *af* (*ab-u*, with interrogative particle *u*) OHG. *aba* 'away' off : Skr. *āpa* Gr. ἄπο 'away off'. Goth. *bi-leiba* OHG. *bi-lību* Ags. *be-līfe* 'I remain' : Skr. *riptā-liptā-* 'besmeared' *līpāmi* 'I smear, fasten to', Gr. λίπος n. 'grease' λιπαρέω 'I persist in', Lat. *lippu-s* 'blear-eyed', Lith. *līmpū* (pret. *lipaũ*) O.Bulg. *pri-līpljā* (inf. -līpēti) 'I remain sticking, cling'.

Goth. *f* was bilabial. So, too, was OHG. *f* in the period of the oldest monuments. In the course of the OHG. period however *f* became labio-dental, as is shown by *nf* from older *mf* (see Kögel Üb. d. Keron. Glossar 58 f.).

The initial *f* in Goth. *finf* OHG. *finf* *finf* 'five' is perhaps not to be traced directly back to Indg. *p* (Indg. **penqe*), but to *kṷ* (**kṷenakṷe*). See §§ 336. 444 rem. 1.

§ 343. Indg. *b*. Goth. *slēpan* OHG. *slafan* 'to sleep' (orig. 'to be slack'), OHG. *slaf* Low G. *slap* 'slack' : O.Bulg. *slabŭ* 'slack, weak', rt. *slēb-*. Goth. *ráupjan* OHG. *roufen* 'to pluck', rt. *reub-*, a secondary form of *reup-* in Ags. *reófan* O.Icel. *rjúfa* 'to break, rend', Skr. *rup-lup-* 'tear, shatter', Lat. *rumpō* (§ 469, 7). Cp. §§ 325. 328. 334. 337. 346.

§ 344. Indg. *bh*. Goth. *beitan* OHG. *bīzzan* *bīzan* 'to bite': Skr. *bhédāmi* 'I split, break down', Lat. *findō*, rt. *bheǵd-*. Goth. *bōka* f. 'letter' (of the alphabet) OHG. *buocha*: Gr. *φηγός*-s a kind of oak bearing an esculent acorn, Lat. *fāgu-s* 'beech'. Goth. *blēsan* OHG. *blasen* 'to blow' OHG. *blāen* 'to swell, blow': Lat. *flāre*. Goth. *liuba-* (nom. *liufs*) OHG. *liob* 'dear': Skr. *lūbhāmi* 'I feel a strong desire', Lat. *lubet libet*, O.Bulg. *ljubū* 'dear', rt. *leubh-*. Goth. *kalbō* OHG. *kalba* 'a female calf': Skr. *gārbha-s* 'embryo, the young', Gr. *δολφός*-s *δελφύς*-s 'matrix', *δέλφαξ* 'pig', rt. *gelbh-*.

For the pronunciation of Goth. *f* (nom. *liufs* acc. *liuf* see § 539) cp. § 342.

Baltic-Slavonic.

§ 345. Indg. *p*. Lith. *pelė* 'mouse' *pālsza-s* 'sallow, pale', O.Bulg. *plavū* 'whitish' *pelesū* 'gray': Skr. *palitā-s* 'gray', Gr. *πελιός*-s *πολιός*-s 'gray', OHG. *falo* (infl. *falawēr*) 'sallow, pale'. Lith. *plakū* 'I strike, scourge', O.Bulg. *plačq* 'I weep': Gr. *πλήσσω* 'I strike' *πληγή* 'a blow', Lat. *plangō plāga*, Goth. *flōkan* 'to bewail', rt. *plaq- plag-* (§ 469, 7). Lith. *tiřpti* 'to grow stiff, become numb' (pret. *tirpaū*), Russ. *terpnuť* 'to grow stiff, become numb': Lat. *torpeō*.

k in Lith. *sėkma-s* 'septimus' from *p* (cp. Pruss. *sepma-s* beside *septma-s*) or from *t*? Cp. § 377.

§ 346. Indg. *b*. Lith. *skabū-s* 'cutting' *skabėti* 'to cut', O.Bulg. *skobli* 'radula': Lat. *scabō*, from rt. *sqab-*, secondary form of *sqap-* in Gr. *σκαπάνη* 'spade, hoe', O.Lat. *scaprēs* 'scabby, rough', Goth. *skaba* 'I shave' (§ 469, 7). Cp. §§ 325. 328. 343.

Lith. *g* for *b* (regularly?) in *dūgna-s* 'ground', to O.Bulg. *dūno* 'ground' fr. **dūb-no* (§ 548), rt. *dheub-*, see § 325.

§ 347. Indg. *bh* = prim. Baltic-Slav. *b*. Lith. *bijó-ti-s* 'to be in fear' *baj-ū-s* 'fearful', O.Bulg. *boj-a-ti* sę 'to be afraid': Skr. *bháy-a-tē* 'is in fear'. Lith. *blendžiū-s* 'I obscure myself' (of the sun), O.Bulg. *blędq* 'I err': Goth. *blandan sik* 'to have intercourse with', rt. *bhlendh-*. Lith. *žėmbu* 'I shoot, bud'

(properly 'I split myself, burst'), O.Bulg. *zēba* 'I tear in pieces': Skr. *jambhāya-ti* 'he pounds, destroys' Av. *zembayeitē* 'he destroys'.

2. Dental Explosives.

Indg. primitive period.

§ 348. Tenuis *t*. Rt. *ten-* 'stretch, extend': Skr. *ta-nō-mi* 'I stretch out, extend' *tan-ū-ṣ* 'thin, small', Gr. *τείνω* 'I stretch', Lat. *ten-tu-s* part., *ten-u-i-s*, O.Ir. *tana* Cymr. *teneu* 'thin', Goth. *þanja* 'I stretch' OHG. *dunni* 'thin', Lith. dial. *tenva-s* O.Bulg. *tīnikū* 'thin'. Stem **trej-* **tri-* 'three': nom. pl. Skr. *tráy-as* Arm. *e-re-kē* Gr. *τριῆς* Lat. *trēs* O.Ir. *trī* Goth. *þreis* Lith. *trīs* O.Bulg. *trīje trije*. Rt. *pet-* 'to move quickly through the air, fly, fall': Skr. *pātāmi* 'I fly, fall', Gr. *πέτομαι* 'I fly', Lat. *petō* 'I reach after something, desire' *im-petu-s* 'a falling against, attack', O.Bret. *etn* O.Ir. *ēn* 'bird', OHG. *fedara* 'feather'. Rt. *uert-* 'roll, turn, direct to': Skr. *vārtatē* 'turns itself, rolls, Lat. *vertō*, Goth. *vairþan* 'to become', Lith. *versti vartūti* O.Bulg. *vratiti* 'to turn'. Rt. *ster-* 'spread, strew': Skr. *stṛ-ṇō-mi* Gr. *στέρω-μι* 'I spread, strew', Lat. *ster-nō*, O.Bret. *strouis* 'stravi', Goth. *stráuja* O.Bulg. *stīra* 'I spread'.

Frequently in suffixes. Participial suffix *-to-*, as **klu-tó-s* 'heard, renowned': Skr. *śru-tá-s* Gr. *κλυ-τό-ς* Lat. *in-clu-tu-s* O.Ir. *clo-th* OHG. *Hlot-hari* Lothar (**Κλυτό-στρατος*, as it were). Ending of the 3. sg. *-ti -t*, of the 3. pl. *-nti -nt*, as **bhére-ti* 'bears' **bhéro-nti* 'they bear': Skr. *bhára-ti bhára-nti*, Gr. Dor. pl. *φέρο-ντι*, Lat. *vehi-t vehu-nt*, O.Ir. pl. *beri-t*, Goth. *baíri-þ baíra-nd*, O.Bulg. *bere-ŭ beratŭ*.

§ 349. Media *d*. **dekṃ* **dekṃt* 'ten': Skr. *dáśa* Arm. *tasn* Gr. *δέκα* Lat. *decem* O.Ir. *deich* *n-* Goth. *taihun* Lith. *dėszimt dėszimti-s*. Stem **dwi-* 'two', nom. acc. du. masc. **duō* **duō* 'two': Skr. *dvī-*, Ved. *dvā duvā*, Gr. *δι-*, *δύ-δεκα δύνω*, Lat. *bi-*, *duō*, O.Ir. *dā*, Goth. *tvái* (pl.), Lith. *dù* masc. (fr. **dwi*) *dvī* fem., O.Bulg. *dva dŭva*. Rt. *veid-* 'see, know': Skr. *vēda* Arm. *git-e-m* Gr. *οἶδα* 'I know', Lat. *videō*, O.Ir. *ad-fiadaim* 'I announce, relate', Goth. *vāt* 'I know', Lith. *vėida-s* 'face, coun-

tenance', O.Bulg. *věděti* 'to know'. Rt. *perd-* 'to break wind': Skr. *pārdatē* Gr. *πέρδεται* 'breaks wind', Ags. *feortan* OHG. *ferzan* 'to break wind', Lith. *piřdi-s* m. 'crepitus ventris'.

Rarely in suffixes. Gr. *χρόμαδο-s* 'a gnashing' *χρεμίζω* 'I bellow, neigh' fr. **χρεμιδ-μω* (§§ 131. 493), Lat. *frendō* fr. **frem-dō* (§ 207), Ags. *grimettan* OHG. *gramizzōn* 'to murmur, gnash'. Suffixal *d* (e. g. Gr. -δων -δνο-s -δαινω : μελεδών μελεδαινώ, Lat. -*din-* : *frīgēdō*, see Leo Meyer Vergl. Gramm. II¹ 363 ff., the auth. Morph. Unt. II 170. 203. 206, Thurneysen Kuhn's Ztschr. XXVI 305 ff.) may have arisen from *t* in the Indg. prim. period just as root-final *d* (§ 469, 7).

§ 350. Media asp. *dh*. Rt. *dhē-* 'set, place, do': Skr. *dhā-ma* 'law, manner, dwelling-place', Arm. *d-ne-m* 'I set', Gr. *ἀνάθημα* 'that which is set up, an offering', Lat. *fa-c-* in *artifex faciō*, *con-dere* (§ 370), Goth. *ga-dē-ps* (st. *ga-dēdi-*) 'deed', Lith. *dē-ti* O.Bulg. *dē-ti* 'to lay'. Rt. *reudh-* 'to be red': Skr. *rudhirá-s* Gr. *ἐρυθρός-s* Lat. *ruber* O.Ir. *ruad* Goth. *ráuþs* (st. *ráuda-*) O.Bulg. *rŭdrŭ* 'red'. Rt. *bhendh-* 'bind': Skr. *bándhana-m* 'a binding', Gr. *πενθερός-s* 'father-in-law' (cp. Skr. *bándh-u-ṣ* 'a relation'), Lat. *of-fendimentu-m* 'chin-cloth', Goth. *bindan* 'to bind'.

More rarely as *t*, oftener as *d* in suffixes. Nominal suffix -*dhlo-*: Gr. *θεμεθλα* pl. 'foundation', Lat. *trī-bulu-m* 'a thrashing sledge' Czech *rá-dlo* (O.Bulg. *ra-lo* fr. **rā-dlo*, §§ 548. 551) 'plough'. Ending of the 2. sg. imper. -*dhi*: Skr. *śru-dhí* Gr. *κλῶ-θι* from rt. *kleu-* 'hear', O.Lith. *veizdi veizd* O.Bulg. *viždŭ* 'see' from rt. *ueid-* (see § 547). Ending of the 2. pl. mid. Skr. -*dhvē* -*dhvam*, Gr. -*θε*.

Aryan.

§ 351. Indg. *t*. Pronominal stem Skr. Iran. *ta-* 'the, this', e. g. in acc. Skr. *tá-m* Av. *te-m*, O.Pers. in *ai-ta-* 'this': Gr. *τό-*, Lat. *tam*, Goth. *þa-*, Lith. *ta-* O.Bulg. *to-*, Indg. **to-* 'the, this'. Skr. *áti* Av. *aiti* O.Pers. *atīy* 'over': Gr. *ἔτι* 'moreover, still', Lat. *et etiam*, Indg. **éti*. Skr. *ásti* Av. *asti* O.Pers. *astīy* 'is': Gr. *ἔστι*, Lat. *est*, Goth. *ist*, Indg. **és-ti* 'is'.

§ 352. *t* became *t* after *ś* (= Indg. *k* or *s*) in Sanskrit.
aṣṭá = Av. *ašta* 'eight' : Gr. *ὀκτώ* etc., see § 360. *uṣṭá-* 'burnt'
 = Av. *ušta-* 'roasted' : Lat. *ustu-s*, Indg. **us-tó-s* from rt. *ey-s*.
 See §§ 399. 556, 1.

-tc- became *-cc-*. *ucca-* 'high' from prim. Ar. **utca-* (*ut-* = *ud-* 'on high').

-tś- became *-cch-* (*-ch-*). *pacchás* 'in the manner of *pāda*, in hemistichs' from **pat-śas* (*pat-* = *pad-* 'foot').

Rem. In certain manuscripts of the Vājasaneyi-saṁhitā *-tku-*, *-tkm-* are written for *-tu-*, *-tm-*, e. g. *patkñi* 'mistress', *patkman-* n. 'flight'. *k* apparently here represents the glide arising from the sudden raising of the uvula (see Sievers Phonet. 3 63. 160 f.).

§ 353. In Iranian, *t* was partly changed into a spirant with a different position of articulation.

Av. O.Pers. *p*, Av. *ḍ* were interdental, as in Av. *ḥraṇ* O.Pers. *ḥraṇm* (read *ḥvām*) = Skr. *tvām* 'thee', Av. acc. pl. *f^hdr-ō* 'patres' fr. **ptr-as*, see § 473, 2.

Av. *ḥk* from *tk*, as *aḥka-* = Skr. *ātka-* 'dress', see § 473, 2

Av. *ś* fr. *rt*, as *mašya-* (*mašiya-*) 'a mortal being, man' = Skr. *mārtiya-* O.Pers. *martiya-*, see §§ 260. 288. 474.

O.Pers. *śc* from *tc* (Skr. *cc*), as *aniyaś-ciṃ* = Skr. *anīyāc-cid* 'any other'. *śy* (written *šiy*, § 125 p. 116) from *ḥy* = prim. Ar. *tj*, as *hašiya-* = Av. *haiḥya-* Skr. *satyá-* 'true'. *ś* fr. *pr* = prim. Ar. *tr*, as *ši-* = Av. *pri-* Skr. *tri-* 'three'. See §§ 261. 473, 2.

§ 354. Indg. *d*. Skr. *dū-rá-* Av. O.Pers. *dū-ra-* 'far, distant' : Gr. Hom. *δεύ-ο-μαι* 'I am at a loss for', (rt. *deu-*) Skr. Av. *dru-* 'wood' : *δρυ-τόμο-ς* 'felling timber', Goth. *triu* n. 'tree'. Skr. *sád-as-* Av. *haḍ-iš-* O.Pers. *had-iš-* n. 'seat', weak pf. stem Skr. *sēd-* Av. *hazd-* prim. Ar. **sa-zd-* (§ 591) : Gr. *ἔδ-ος* n. 'seat', Lat. *sedeō sēdī*, O.Ír. *suide* 'seat', Goth. *sitan* 'to sit', Lith. *sėdėti* O.Bulg. *seděti* 'to sit'. Skr. *chind-ánti* 'they cut off, tear', Av. *scind-āyeiti* 'he breaks' : Gr. *σχινδ-αλυσ-ος* 'a splinter', Lat. *scind-ō*.

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* § 355. *d* became *ḍ* after *ṣ* (= Indg. *z*) in Sanskrit; *ṣ* was then dropped. *nṛḍá-s* 'nest' : Arm. *nist* 'seat, possession',

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ṣ

Lat. *nīdu-s*, OHG. *nest* 'nest', Indg. **ni-zd-o-* 'sitting down, abode' from *ni* 'down' and rt. *sed-* 'sit'. See § 591.

-*dj-* became -*jj-*. *újjiti-š* 'victory' from **ud-jiti-š*. Analogously *ujjhitá-* 'forsaken, given up' fr. **ud-jhita-*, see § 406.

§ 356. *d* partly became an interdental spirant *ḍ* in Av., as *daḍaiti* = Skr. *dáda-ti* 'gives' from rt. *dō-*, see § 478.

Prim. Ar. *dy-* appears as (*dv-* and) *ḍb-* (Gāp. *db-*), *b-*. *dbiš-* (Gāp. *d*biš-*) = Skr. *dviṣ-* 'hate'. *bitīm* (Gāp. *d*bitīm*) = Skr. *dvitīya-m* 'secundum'. See § 159 p. 143.

§ 357. Indg. *dh*. Skr. *dhárṣ-āmi* 'I dare', Av. *darṣ-i-š* 'vehement' O.Pers. *a-darṣ-nau-š* 'he dared': Gr. *θρασ-ύ-ς* 'bold' *Θερα-ίτης* 'the insolent one', Goth. *ga-dars* 'I dare', Lith. *dr̃s-ti* 'to dare' (§ 285 rem.), rt. *dhers-*. Skr. *mádhu* Av. *maḍu* n. 'sweetness, honey': Gr. *μέθυ* 'wine', O.Ir. *mid* OHG. *metu meta* 'mead', Lith. *medù-s* O.Bulg. *medŭ* 'honey', Indg. n. **médhu*. 2. sg. imper. Skr. *śru-dhí* 'hear', Av. *i-ḍi* O.Pers. *i-dīy* 'go': Gr. *ἵθι* 'go'. Skr. *mádhya-* Av. *maiḍya-* 'medius': Gr. *μέσο-ς* 'medius', Lat. *mediu-s*, O.Ir. *medōn* 'medium', Goth. *midji-s* 'medius', O.Bulg. *mežda* 'boundary', Indg. **medh-jo-* 'medius'.

§ 358. *dh* became *ḍh* after *ž* (from old *g* or *z*) in Sanskrit; *ž* was then dropped. *léḍhi* 'licks' from **lēždhi*, **leiğdhi* i. e. **leiğh+ti*. *mūḍhá-* 'battle prize, combat': Av. *mīžda-* 'wages, pay', Gr. *μισθό-ς* Goth. *mizdō* O.Bulg. *mīzda* 'wages, pay', Indg. **mizdhó-*. See §§ 396. 404. 591.

§ 359. In Iranian, where the Indg. and prim. Ar. mediae asp. fell together with the mediae, the former underwent the same changes as the latter, e. g. Av. *maḍu* (§ 357) as *daḍaiti*. See § 356.

Armenian.

§ 360. Indg. *t*. *tarām-i-m taršam-i-m* 'I fade, wither': Skr. *tarṣa-s* 'thirst', Gr. *τίρσομαι* 'I become dry', Lat. *torreō tostus*, O.Ir. *tart* 'thirst', Goth. *þāursu-s* 'withered'. *tanjr* 'dense': Av. superl. *tancišta-* 'strongest', Goth. *þeihan* 'to thrive' fr. prim. Germ. **þenxana-n*, MHG. *ge-dihite* adv. 'frequently' O.Icel. *þētrr* 'close, tight' fr. prim. Germ. **þenxto-* (§ 67

rem. 2), Lith. *tenkù* 'I have sufficient' *tánku-s* 'close'. *ut* 'eight' : Skr. Ved. *aṣṭā* (§ 352) Gr. *ὀκτώ* Lat. *octō* O.Ir. *ocht n-* Goth. *ahtáu* Lith. *asztūnì* 'eight'.

t after *s*. *astl* (gen. *astel*) 'star, constellation' : Skr. *stár-* Gr. *ἀστὴρ* Lat. *stella* Bret. *sterenn* Goth. *stairnō*. *sast* (gen. *sasti*) 'a reviling, reproach' : Skr. *śas-ti-ś* 'a punishment, command' *śas-tár* 'chastiser, commander'.

d after *r*, *n*. *mard* 'homo' : Skr. *mṛtá-s* (§ 291). -and in *dr-and dr-andi* 'door-post, threshold' : Skr. *ātā*, Lat. pl. *antae*, see § 253 p. 207.

ʔ fr. *ty*. *ko* 'tuus' *ʔez* 'to thee' : Skr. *tvám* 'thou', Gr. Cret. *τῆ* Att. *σέ* 'thee' (§ 166 p. 147), O.Bulg. *twojǎ* 'thy'. *ʔar-* 'four' (*ʔar-a-sun* 'forty') fr. **(q)tyr-* = Gr. *τρε-*, in *τρά-πεζα* 'table' (orig. 'four-foot'). Cp. § 162.

Intervocalic *t* became *ʔ* and then disappeared. *hair* (pl. *har-ʔ*) 'father', *mair* (pl. *mar-ʔ*) 'mother' : Gr. *πατήρ, μήτηρ*. *heru* adv. 'last year' : Gr. Dor. *πέρυντι*, O.Ir. *urid* MHG. *vert* 'last year'.

-*atr-* became -*aur-*. Gen. *haur* 'of a father', *maur* 'of a mother' : Gr. *πατρ-ός, μητρ-ός*. *araur* 'plough' : Gr. *ἄροτρο-ν*.

-*rh-*, later -*h-*, from -*rti-* or -*rtr-*. *marh mah* (gen. *marhu mahu*) 'death', to Skr. *mṛtyú-ś* 'death' or to Goth. *maúrþr* 'murder'; concerning *ar* from Indg. *r* see § 291.

§ 361. Indg. *d*. *tiv* 'day' : Skr. instr. *div-ā* 'by day', Gr. gen. *Δι(φ)-ός*, Lat. *diē-s*, Cymr. *dyw* 'day', Lith. *dēva-s* 'god'. *ta-m* 'I give' : Skr. *dá-dā-mi* Gr. *δί-δω-μι* Lat. *dō* 'I give', Lith. *dū-ti* O.Bulg. *da-ti* 'to give'. *het* (gen. *hetoy*) 'foot-print', *het yet* 'behind, after' (§ 330 rem.) : Skr. *pad-ā-m* 'foot-step, foot-print', Gr. *πιδ-ά* 'after, with' gen. *ποδ-ός* 'of a foot', Lat. gen. *ped-is*, Goth. *fōt-u-s* 'foot', Lith. *pėd-à* 'foot-print'. *kirtn* 'sweat' (rt fr. *tr*, § 263) : Skr. *svēda-s* Gr. *ἰδρώς* Lat. *sūdor* Cymr. *chwys* OS. *swēt* OHG. *sweiz* 'sweat', rt. *sweid-*.

§ 362. Indg. *dh*. *diem* 'I suck' : Skr. *dháyami* 'I suck, drink', Gr. *θή-σαστο* 'he sucked', Lat. *fē-lāre* 'to suck', Mid.Ir. *dū-th* 'he sucked', Goth. *daddja* 'I suckle', O.Bulg. *doja* 'lacto'. *dustr* (gen. *dster*) 'daughter' : Skr. *duhitār-* (*d-* fr. *dh-*, § 480) Gr. *θυγάτηρ* Goth. *daúhtar* Lith. *duk-tė* O.Bulg. *dūšti* 'daughter'.

Greek.

§ 363. Indg. *t*. τελαμών 'a strap for bearing anything' τάλαντο-ν 'a balance': Skr. *tuḷá* 'balance', Lat. *tollō*, Goth. *þuláip* 'suffers, endures'. *ἔτος* ἔτος n. 'year': Skr. *vats-á-s* 'year', Lat. *vetus-tu-s* 'aged, old', O.Bulg. *vetŭchŭ* 'old'. στιζω 'I prick' στιγμή 'a prick, mark': Skr. *tig-má-s* 'pointed, sharp' (for *t-* fr. *st-* see § 589, 3), Lat. *in-stigare*, Goth. *stiks* 'moment of time' OHG *stih* 'a prick'. Participial suffix *-nt-*, acc. sg. *φέρο-ντ-α* 'ferentem': Skr. *bhára-nt-am* 'ferentem', Lat. *eu-nt-em*, Goth. *gūa-nd* 'datorum', Lith. *vẽža-nt-i* 'vehentem'.

ππ from *ππ*. Hom. *κάππεσσι*, aor. *κατα-πίπτω* 'I fall down'. **τπ > ππ* Hom. Lesb. *ὄππως* 'how' fr. **ότπως* i. e. **σφόδ* (Goth. *sva* 'so') + indef. *πως*; the simplification of the double consonant in *ὄππως* ensued from the model of the uncompounded *πῶς*; cp. *ὅττι* (*ῶτι*) fr. **σφόδ* + *τι*.

§ 364. Indg. *d*. Nominal prefix *δυσ-* 'mis-, bad, ill' e. g. in *δυσ-μενής* 'ill disposed': Skr. *duṣ-*, Armen. *t-* ('un-' e. g. *t-gēt* 'unknowing', *t-mardi* 'inhumanus', see Hübschmann Ztschr. d. deutsch. morg. Ges. XXXVI 120 f.), O.Ir. *du- do-*, Goth. *tuz-* OHG. *zur-*, Indg. **dus-* 'mis-, ill, bad, hard, un-'. *ἡδ-ύς* 'sweet, pleasant': Skr. *svād-ú-ṣ* 'sweet, well-tasted', Lat. *suadeō* (properly 'I exhibit something agreeable'), Goth. *sūts* (*sūts*?) 'sweet'. *ὑδ-ωρ* 'water' *ἄν-υδρο-ς* 'waterless': Skr. *ud-án-* 'water' *an-udrá-s* 'waterless', Armen. *get* (gen. *getoy*) 'river' (*g-* fr. *u-*, § 162), Lat. *unda*, Goth. *vatō* n. 'water', Lith. *vandŭ* O.Bulg. *voda* 'water' (cp. footnote to p. 189). μέλδομαι 'melt, grow liquid': OHG. *smilzan* 'I melt, grow liquid', rt. *smeld-*.

δ became *δ̃* in El. at an early period (later also elsewhere), which was written *ζ* on the oldest El. inscriptions, e. g. *ζίκαια*, *Φειζώς*. See § 491.

λλ fr. *δλ* in Lacon. *ἐλλά* 'seat', to *ἔδος*, perhaps also in *ἕλλο-ς* 'ichneumon' (Curtius Grundz.⁵ 248).

§ 365. Indg. *dh*. *θύ-νω* 'I rush or dart along' *θύ-ος* 'frankincense' *θυ-μός* 'courage, passion': Skr. *dhū-má-s* Lat. *fū-mu-s* 'smoke', OHG. *tūmalōn* 'to revolve, reel', Lith. pl. *dū-*

mai O.Bulg. *dy-mŭ* 'smoke' *aĭθ-ω* 'I burn': Skr. *édh-a-s* 'fire-wood', Lat. *aedēs* orig. 'burning-place, hearth', O.Ir. *aed* 'fire', OHG. *eit* 'funeral-pile'. *ἄνθος* n. 'germ, blossom, flower': Skr. *ándhas* n. 'vegetable'.

In several dialects prim. Gr. *θ* i. e. *th* became at an early period the interdental spirant *þ*, which partly moved forwards to *f*. S. § 495.

Italic.

§ 366. Indg. *t*. Lat. *termō termen*, Umbr. *terminom-e ad terminum*, Osc. *teremnattens* 'terminarunt': Skr. *tárman-* n. point of the sacrificial rod', Gr. *τέρας* 'boundary', *τέμα* 'end, goal'. Lat. *tovo-s tuo-s*, Umbr. *tover* gen. 'tui' Osc. *tuvai* dat. 'tuæ': Skr. *táva* 'tui', Gr. *τε(φ)ός* 'tuus', Lith. *tavàs-is* 'thine'. Lat. *quatuor quattuor*, Umbr. *petur-* 'quadru-' Osc. *petiro-pert* 'quater': Skr. *catvār-as* Gr. Ion. *τέσσαρ-ες* O.Ir. *cethir* Goth. *fidvōr* 'four', Lith. *ketverì* 'by fours', O.Bulg. distrib. *četvero*. Comparative suffix *-tèro- -tro-*, Lat. *u-ter*, Umbr. *po-druh-pei* 'utroque' Osc. *pú-túrús-píd* pl. 'utrique': Skr. *ka-tará-s* Gr. *πό-τερο-ς* Goth. *hva-þar* Lith. *ka-trà-s* 'which of the two', O.Bulg. *ko-tory-jì* 'which'.

*+|>ke
§ 367. In the prim. Ital. period *tl* became *kl* except, as it seems, initially and in the combination *stl* (cp. Umbr. gen. sg. *Tlatie* to Lat. *latu-s* fr. **tlato-s*, Indg. **tl-to-s*, Lat. *stlīs stlocu-s*). Nominal suffix *-klo-* fr. *-tlo-* (Gr. *-τλο-* e. g. *ἄν-τλο-ς* 'bilge-water'): Lat. *sae-clu-m sae-culy-m*, *piā-clu-m piā-culy-m* (*-culo-* fr. *-clo-*, § 269), Umbr. *piha-klu* 'piaculorum', Osc. *sakara-klúm* 'sacrum' *pu-klo-* 'son' = Skr. *pu-trá-s* 'son'; for the change of this *-klo-* to *-kro-* by dissimilation as in Lat. *lavā-cru-m*, see § 269.

This change, which was caused by the lateral articulation (instead of the coronal) of the *t* anticipating the *l*, repeated itself in the course of the individual dialects. Here belong e. g. Lat. *ex-anclāre* fr. Gr. *ἐξ-αντλεῖν* 'to draw out', Vulgar Latin *veclu-s* (Italian *vecchio*) from *vet(u)lu-s*. In the Lat. historic period it extended itself also to the combination *stl*, hence such

spellings as *scilis sclataris* beside *stlis stlataris*. In like manner Umbr. *pers-clu pes-clu* 'supplicatione' beside Osc. *pes-tlúm* 'sacellum, templum'.

Rem. The same phenomenon in Lith., see § 377. Cp. also Mod.Gr. $\xi\alpha\gamma\kappa\lambda\zeta\omega$ = O.Gr. $\xi\gamma\text{-}\alpha\gamma\lambda\acute{\epsilon}\omega$, $\sigma\epsilon\upsilon\kappa\lambda\omicron$ 'beet' = O.Gr. $\sigma\epsilon\upsilon\tau\lambda\omicron\text{-}\gamma$ (Foy Lautsystem der gr. Vulgärspr. 7); Gipsy lang. *kockli* 'scissors' = *katlin* Skr. *kartri*, *schuklo* fr. *schutlo* 'sour' (Bugge Kuhn-Schleicher's Beitr. I 154); Czech dial. *klustej* = *tlustj* O.Bulg. *tlüstyj* 'thick' *klouci* = *tlouci* O.Bulg. *tlüšti* (beside *tlěšti*) 'to strike' (Miklosich Vergl. Gramm. I² 506, Burda Kuhn-Schleicher's Beitr. VI 245).

-tr- seems to have become -cr- in Pelignian : *sacaracirix* 'sacrificans' = Lat. **sacra-trī-x*, cp. § 271.

Lat. -cc- from -tc-. *siccu-s* (to *siti-s*) : O.Ir. *sesc* Cymr. *hysp* 'dry, withered, barren', cpf. **sitgo-s* (§§ 419. 516). *peccō* fr. **petcō* i. e. **ped-cō*, to *pēs impediō* etc. *floccu-s* probably fr. **flotco-s* i. e. **flood-co-s*, to Gr. $\phi\lambda\upsilon\delta\epsilon\acute{\iota}\nu$ 'to rend'. Analogously *accipiō*, *acquirō* fr. **atc.*, **atqu.* i. e. *ad+c.*, *qu.*; *quicquam* fr. **quitquam* i. e. *quid+quam* (*quidquam* is the etymological spelling). Cp. further *appellō* fr. **atp.* i. e. *ad+p.*, *topper* 'forthwith' fr. **totper* i. e. **tod* (cp. *is-tud*, Skr. *tád* 'the' neut.) + *per*, cp. *sem-per parum-per*.

§ 368. Indg. *d*. Lat. *dīcō*, Umbr. *deitu* 'dicito' Osc. *deīkum* 'dicere' : Skr. *diśāmi* 'I show, point out', Gr. $\delta\epsilon\acute{\iota}\kappa\nu\mu$ 'I show', *Goth. ga-teiha* 'I announce, proclaim'. Lat. *divo-s* *deu-s* (cp. § 172, 2), Umbr. *deveia* 'divina' Osc. *deivaí* dat. 'divae' : Skr. *dēvā-s* O.Ir. *dia* Lith. *dēva-s* 'god'. Lat. *ed-ō*, Osc. *edum* 'edere' : Skr. *ád-mi* *Arm. ut-em* Gr. $\epsilon\delta\text{-}\omega$ Goth. *it-a* 'I eat', Lith. *éd-u* 'I eat' O.Bulg. *jad-ŭ* f. 'food'. Lat. *mod-es-tu-s* *mod-u-s*, Umbr. *meř-s mers* 'ius' fr. **medos* : Arm. *mit* (gen. *mt-i*) 'thought', Gr. $\mu\acute{\epsilon}\delta\text{-}\omicron\text{-}\mu\alpha\iota$ $\mu\acute{\eta}\delta\text{-}\omicron\text{-}\mu\alpha\iota$ 'I consider, plan', O.Ir. *miduř* 'puto', Goth. *mīta* 'I measure'. Lat. *pēdō* fr. **pezdō* (§ 594) : Gr. $\beta\delta\acute{\epsilon}\omega$ 'I break wind' etc., see § 334.

§ 369. *l* appears for *d* (initially before vowels, medially between vowels) in about twelve Lat. words. E. g. *lēvir* : Skr. *dēvár-* *Arm. taigr* Gr. $\delta\alpha\gamma\omicron$ Lith. *dēver-ŭ-s* 'husband's brother'; *limpa* : Osc. *Diumpaís* 'Nymphis' (§ 49 p. 42); *lacruma*, older *dacruma* : Gr. $\delta\acute{\alpha}\kappa\rho\nu$ O.Bret. *dacr* Goth. *tagr* 'a

*d > l / V-V

21
o h w

tear'; *olō oleō* beside *odor* : Gr. ὀδμή 'smell', Lith. *ū džiu* 'I smell something'; *soliu-m* beside *sedeō* : Gr. ἔδ-ος 'seat'; *solum solea* : Gr. ὁδός 'way' ἔδαφο-ς 'bottom, ground', O.Bulg. *choditi* 'to go'; *ulīgō* beside *ūdu-s* *ūvidu-s* with suffixal *d*; *mālu-s* probably from **mazdo-s* : OHG. *mast* 'mast' (§ 596). This change, due to the dorsal articulation of the *d*, was possibly not occasioned by any special phonetic conditions whereby *d* stood in the words in question opposed to other Lat. words containing *d*, but had its origin in some local dialect.

Rem. 1. I decidedly hold the forms with *r* = *d* as *ar* = *ad* (*ar-biter ar-vorsus*), *apor* = *apud* for non-Latin, s. Corssen Ausspr. I² 238 ff., Jordan Krit. Beitr. 92 ff., Stolz Lat. Gramm. § 51. These words were imported from one of the Umbr.-Samn. dialects. Cp. this § lower down.

du became *b*, e. g. *bi-s* : Skr. *dvi-ś* 'twice'. See § 170 p. 150.

dl became *ll*. *sella* fr. **sed-lā* : Gr. Lacon. ἑλλά 'seat' § 364, Goth. *sitts* 'seat'. *rallu-m* 'ploughshare', to *rādō* : Skr. *rādāmi* 'I scratch'. Cp. also *grallae* 'stilts', to *gradior*, with *d* = Indg. *dh* : Goth. *grīps* (st. *gridi-*) 'step, grade', O.Bulg. *gręda* 'I come' (§§ 370. 511).

ld became *ll*. *sallō* (*salsu-s*) : Goth. *saltan* 'to salt'. *per-cellō*, to *clād-es* fr. **klād-* (§ 306 p. 243) : Gr. Hom. κλάσσαι 'to break', κλαδάσαι · σείσαι Hesych. (*per-culsu-s* = κλαστό-ς, cpf. **klēto-s* i. e. **klād+to-*). The *d* in **saldō* and **per-celdō* did not belong to the root. *molli-s* fr. **moldu-i-s* : Skr. *myd-ū-ś* 'soft, tender', fem. *myd-v-ī*.

Rem. 2. Observe the limited period of the operation of this sound-law. *valdē* fr. *validē*, *caldus* fr. *calidus* did not suffer this assimilation.

dg became *gg* : *agger* fr. **ad-ger*.

In Umbrian intervocalic and final *d* passed into a sound (*ř* and *rs*), which we conjecturally denoted in § 23 as a strongly spirant *r*. *te-řa de-rsa* 'det' *te-řust di-rsust* 'dederit' : Lat. *de-dī*, Skr. pres. *dā-dā-mi* perf. Ved. *da-dā*, Gr. δέ-δω-μι δέ-δο-μαι, rt. *dō* 'give'. *per-i pers-i* 'pede' *du-purs-us* 'bipedibus' : Lat. *ped-*, Gr. ποδ- 'foot'. *asam-ař* 'ad aram' *ars-veitu* 'ad-vehito' : Lat. *ad* O.Ir. *ad-* Goth. *at*. In a few instances simply *r* or *s* is written instead of *rs*, as *ar-* beside *ars-*, *a-tropusatu* beside *aha-tripursatu* '(abs)tripodato'.

*clg > b
*dl > ll

*ld > ll

Rem. 3. The forms řeře 'dedit' and řunu 'donum' arose from association of the initial *d* to the medial ř of the forms teřa teřust etc.

A similar change of the *d* is shown in Volsc. *ar-patitu*, with *ar* = Lat. *ad* (how the verbal form itself is to be understood is doubtful), and in Mars. *apur finem* 'apud finem'. The *Đ* in Pelign. VIDAD ('videt' or 'viderat') may denote a similar *r*-sound.

§ 370. Indg. *dh* became *þ* in the prim. Ital. period, and it may be assumed that this spirant in the same period was shifted to *f* uniformly initially, medially before and after *r*, before *l* and after *u* (*u*), perhaps also after *m*. Medial *f* then became *b* in Lat. Lat. *fēlare filiū-s*, Umbr. *feliuf filiū* acc. 'lactantes': Skr. *dhāyāmi* etc., see § 362. Lat. *foru-m* Umbr. *furo* 'forum', prim. Ital. **þuro-m*: Skr. *dvār-* 'door' (for regular **dhvār-*, § 480), Lith. *dvāra-s* O.Bulg. *dvorū* 'yard'. Lat. *forti-s* O.Lat. *forti-s*: Skr. *dyāhá-s* 'firm, strong' fr. **dhṛṣṭha-s* i. e. Indg. **dhṛgh+to-* (§§ 482. 552). Lat. *rubro-*, Umbr. *rufru* 'rubros': Gr. *ῥυθρός-s* O.Bulg. *rūdrū* 'red', O.Icel. *roðra* f. 'blood', Indg. **rudh-ró-s*. Lat. *combr-ētū-m* a kind of rush: Lith. *szveñdrai* pl. a kind of sedge or reed, cpf. **kyendhro-* (Lat. *co-* fr. **cye-*, § 172, 3). Italic suffix *-fro-* = Gr. *-θρο-*, Lat. *cribru-m*¹⁾, *verte-bra*, Osc. *Vena-fru-m* name of a town ('hunting place, hunting ground' according to Corssen's probable conjecture). Lat. *barba* (on the initial *b* see § 338 rem.): OHG. *bart* O.Bulg. *brada* 'beard'. Italic suffix *-flo-* = Gr. *-θλο-*, Lat. *sta-bulu-m* (*-bulo-* fr. *-blo-*, § 269), Umbr. *sta-flarem* 'stabularem', Pelign. *pri-sta-falacirix* 'antistita' fr. **-sta-fla-crīx* (§ 271) = Lat. **prae-stabulātrīx*. Lat. *rōbu-s*, Umbr. *rofu* 'rubos', prim. Ital. **roufo-*: O.Ir. *ruad* Goth. *ráuþs* (st. *ráuda-*) 'red', cpf. **rouðho-s*; Lat. *rūfu-s* was a loan-word from an Umbrian-Samn. dialect. Lat. *ūber* n.: Skr. *ūdhar*, Gr. *οὐθαρ* OHG. *ūtar* 'udder'. Lat. *jubeō* O.Lat. *joubeō* beside *jussē jussus*; *ss* proves the origin of the

ol. *forti-s* >
fortis
 < **dhṛgh+to-*

1) The suffix-form *-dhrā-* might be maintained for OHG. *rī-ttara* Ags. *hrī-dder* 'sieve', but they also admit of being traced back to *-trā-*, Cp. Kluge *Nominale Stammbildungslehre der altgerm. Dial.* p. 46.

b from *dh*, see § 552. If Lat. *lumbu-s* belongs to OHG. *lenti* 'loins' O.Bulg. *lędvijsa* 'loins, kidneys', it must be traced back to a **lomdho-s*; the origin of *p* fr. *dh* would then be older than the change of *m* to *n* before dentals (§ 207). Cp. Osthoff Zur Gesch. d. Perf. 533 f.

In other cases Lat. *d* and Osc. *f* stand opposite to each other medially. Lat. *mediu-s*, Osc. *mefiaí* loc. 'in media': Skr. *mádhyā-s* etc., see § 357. Lat. *aedēs aedili-s*, possibly Osc. gen. sg. *Aífineís* (Osc. *aídil* was a Lat. loan-word): Skr. *édha-s* etc., see § 365. *vidua*: Skr. *vidhāvā* O.Ir. *fedb* Goth. *viduō* O.Bulg. *vídova* 'widow'. *con-dō con-ditu-s* beside *fa-c-iō*, from rt. *dhē-* 'place, lay, do' (§ 350). Lat. *d* points to *p* as the direct previous stage, and thus the Osc. *f* cannot be prim. Ital. *f*.

That *d*, not *b*, appears after *r* in Lat. *arduo-s* fr. prim. Ital. **arḥyo-s* (: Skr. *ūrdhvā-s* Gr. *ὀρθό-ς*, § 170 p. 150, § 306), was due to the combination *ḥy*.

Rem. Concerning the *f* in Lat. *inferu-s infimū-s* which are generally connected with Skr. *adhamā-s* 'undermost', Goth. *undar* 'under' (cp § 244), cp. the conjecture given in § 389 rem.

Old Irish.

§ 371. Indg. *t* = prim. Kelt. *t*. *temen* 'dark, gray' *temel* 'darkness': Skr. *tāmas-* n. 'darkness', Lat. *tenebrae*, OHG. *demar* ^{clawmery} 'twilight', Lith. *tamsà* 'darkness'. *tarathar* 'borer': Gr. *τερέω* 'I bore, pierce' *τέρετρο-ν* 'borer, gimlet', Lat. *terō terebra*. *ocht n-* 'eight': Gr. *ὀκτώ* etc., see § 360. *alt t-* preterite to *alim* 'I foster, bring up'. *tiagaim* 'I stride, go' with loss of initial *s*- (§ 575): Gr. *σείλω* 'I go', Goth. *steiga* 'I ascend', O.Bulg. *stignā* 'I come', rt. *steigh-*.

cēt (read *cēd*) Cymr. *cant* 'hundred': Skr. *śatā-m* Gr. *ἑκατό-ν* Lat. *centu-m* Goth. *hund* Lith. *szimtu-s*. See §§ 212. 513.

Spirantal *th*, *d* after vowels. *mā-thir* 'mother': Skr. *mātā* Gr. *μήτηρ* Lat. *māter*. Gen. *be-thad* dat. *be-thid* (nom. *beo-thu* 'life'), suffix *-tūt-*: Lat. *-tūt-*. See § 514.

§ 372. Indg. *d* = prim. Kelt. *d*. *derc* 'eye' *air-dirc* 'conspicuous, renowned': Skr. *dadārśa* 'I saw', Arm. *tes-ane-m*,

Gr. *δέσπομαι* 'I see', Goth. *ga-tarhjan* 'to mark out'. *dēt* 'tooth': Skr. *dānt-* Gr. *ὀδόντης* Lat. *dēns* Goth. *tunþ-u-s* Lith. *dant-i-s* 'tooth'.

d was spirantal e. g. in *cride* 'heart': Arm. *sirt* (gen. *srti*) Gr. *καρδιά καρδία* Lat. *cor* (gen. *cordis*) Goth. *hairtō* Lith. *szirdi-s* O.Bulg. *srǫdice* 'heart'. See § 522.

nn from *nd* e. g. in *ro se-scaind* redupl. pf. 'he leapt': Skr. *skānd-ami* 'I jerk, leap', Lat. *scand-ō*. See § 520.

Assimilation of the *d* in the prep. *ad-* = Lat. *ad* to a following *g* and *b*, when *ad-* had the chief accent. *accaldam* *acaldam* 'address, conversation' beside *ad-glādur* 'I address'. *ápēlugud* 'adulation' fr. **ād-bēlugud*. *cc*, *c* is to be read as *gg*, and *p* as *bb*. See § 519.

§ 373. Indg. *dh* = prim. Kelt. *d*. *fu-domain* 'deep', Cymr. *dwfn* 'deep', to which probably also *domun* 'world' Gall. *Dubno-rīx* *Dumno-rīx* ('world-king'): Goth. *diups* 'deep' etc., see § 325. Mid.Ir. *dī-th* 'he sucked': Skr. *dháyami* etc., see § 362. *ard* 'high' (to which probably *Arduenna silva*): Skr. *ūrdhvā-s* Gr. *ὀρθός* 'upright' Lat. *arduo-s* (§§ 306. 370). *meld-ach* 'acceptus, gratus': OHG. *milti* OS. *mildi* 'mild, kind'.

d was spirantal e. g. in *riad* 'a driving': Gall. *rēda* 'vehicle', OHG. *rītan* 'to move on, drive, ride' O.Icel. *rīða* 'to travel, ride', rt. *reiðh-*. See §§ 522. 526.

Compare further *iud-* 'combat' in Brit. proper names as O.Cymr. *Iud-nerth* (*nerth* 'power, strength') *Iud-ri* (*ri* 'king'): Skr. *yúdh-* 'fight, combat'.

Germanic.

§ 374. Indg. *t*. Goth. OHG. *ist* 'is': Skr. *ás-ti* etc. Goth. *rathis* OHG. *reht* 'right': O.Pers. *rāsta-* 'straight, right', Gr. *ῥεττός* 'stretched out', Lat. *rēctus*, prim. f. **rēk-to-s*. Cp. § 528.

Goth. *þaúrnu-s* OHG. *dorn* Ags. *ðorn* O.Icel. *þorn* 'thorn': Skr. *tī-ṇa-m* 'blade of grass', O.Bulg. *trǫnū* 'thorn'. Goth. *anþar* OHG. *andar* Ags. *ōðer* 'other': Skr. *an-tará-s* Lith. *añ-tra-s* 'other'. Goth. *vairþan* OHG. *werdan* Ags. *weorðan* 'to become': Skr. *várt-a-tē* etc., see § 348.

-hood
 skr + ket-ú-š*

Goth. *háid-u-s* 'manner', OHG. *heit* Ags. *had* 'state, condition, property' : Skr. *kēt-ú-š* 'luminous phenomenon, appearance, picture, form'. Goth. OS. *hund* O.Icel. *hund-rað* OHG. *hunt* 'hundred' : Skr. *śatá-m* etc., see § 371.

With the exception of *-tk-*, which became *-sk-*, in all combinations in which Indg. *t* underwent a shifting in prim. Germ., there arose first of all the interdental spirant *p̥*, which partly became *ð*. In Goth. *p̥* remained everywhere, *ð* partly remained, and partly became *d*. In HG. *p̥* and *ð* became explosives again. For details see § 527 ff.

Prim. Germ. initial *p̥l-* from pre-Germ. *tl-* became *fl-* in West Germ. and Norse. OHG. *flīohan* Ags. *flēon* O.Icel. *flýja* 'to flee' : Goth. *pliuhan*. OHG. *flēhan* 'to caress, flatter, ask urgently', Ags. *flah* O.Icel. *flār* 'deceitful, false' : Goth. *ga-plāihan* 'to caress, console, speak friendly to'. Etymological equivalents for these words are wanting in the other Indg. languages.

In Middle German dialects *tw-* = prim. Germ. *p̥u-* passed into *kw-* (*qu-*). Mod.HG. *quängen quängeln* (beside *zwängen*) : MHG. *twengen* 'to put under constraint' (cp. the orthography *tquang* for *twanc* in Grimm's D. Gramm. I² 355 rem. of the new reprint), O.Icel. *p̥vinga* 'to compel'. MHG. *querch* Mod.HG. *quer* (beside Mod.HG. *zwerch*) : MHG. *twerch twer* 'cross, oblique', Goth. *p̥vairhs* 'angry'. Cp. OHG. *quīfalōn* § 375.

§ 375. Indg. *d*. Goth. *tiuhan* OHG. *ziohan* Ags. *teón* 'to draw' : Gr. *δαί-δύσσεσθαι* · *ἐλκεσθαι* Hesych., Lat. *doucō ducō*, rt. *deuk-*. Goth. *triggva* f. 'covenant' OHG. *triuwa* 'fidelity' (§ 179 p. 157) : Pruss. *druwi* f. 'faith', Gr. *δοῶν* · *ἰσχυρόν*. *Ἀγυεῖαι* (Hesych.). Goth. *hairtō* OHG. *herza* Ags. *heorte* O.Icel. *hjarta* 'heart' : Gr. *καρδ-ία* etc., see § 372. Goth. *vitan* OHG. *wizzan* 'to know', Indic. *vāit weiz* 'I know' : Skr. *vēda* etc., see § 349.

OHG. *z* was the affricata *ts*, whereas *zz* (the oldest Mss. have *zz* after both long and short vowels, finally *z*) was a voiceless spirant, whose position of articulation seems to have been

somewhat different from that of *s* (Paul in Paul-Braune's Beitr. I 168 f.).

Prim. Germ. *tu-* = Indg. *du-* appears in Alemanic in the OHG. period as *qu-*, *quīfalōn* 'to doubt' beside *zwīfalōn* : Goth. *tveīfs* 'doubt', to prim. Germ. **tūi-* OHG. *zwi-* = Indg. **dwi-* 'two', see § 349. Cp. the younger *qu-* = prim. Germ. *pū-* in Middle German § 374.

§ 376. Indg. *dh.* Goth. *dags* OHG. *tag* Ags. *dæȝ* O.Icel. *dagr* 'day' : Skr. *nī-dāghā-s* 'heat, hot time, summer', Lith. *dāga-s* *dagà* 'harvest' (properly 'hot time'), cpf. **dhogho-s*, from rt. *dhegh-* 'burn'. Goth. *bindan* Ags. *bindan* OHG. *hintan* O.Icel. *binda* 'to bind' : Skr. *bándhanam* etc., rt. *bhendh-*, see § 350.

Goth. *ana-biudan* 'to command, order' Ags. *beóðan* OHG. *biotān* O.Icel. *bjóða* 'to offer' : Skr. *bódhami* 'I awake, mark, perceive', Gr. *πύθομαι πυνθάνομαι* 'I inquire, ask', Lith. *būdinti* 'to awake' O.Bulg. *būdēti* 'to wake, watch over', rt. *bheydh-*.

ð arose first of all in every combination in prim. Germ. This returned to an explosive in West Germ. throughout, and partly in Goth. For details see § 537 ff.

Baltic-Slavonic.

§ 377. Indg. *t.* Lith. *taszýti* O.Bulg. *tesati* 'to chop' : Skr. *tákṣāmi* 'I make, fashion', Gr. *τέκτων* 'carpenter', Lat. *texō*, O.Ir. *tal* 'carpenter's axe'. Lith. *szvit-ėti* O.Bulg. *svīt-ėti* 'to shine brightly' : Skr. *śvit-rá-s* *śvēt-á-s* 'brilliant, bright', rt. *kṣeīt-*. Lith. *kert-ù* 'I hew, strike' O.Bulg. *črīt-a* 'I cut' : Skr. *kṛnt-āmi* 'I cut, split', rt. *qert-*. Lith. *at-min-ti-s* 'memory' O.Bulg. *pa-mę-ti* 'remembrance' : Skr. *ma-ti-ṣ* etc., Indg. **mṇ-ti-s* 'a thinking of, meditating' (rt. *men-*).

tl became *kl* (cp. *gl* fr. *dl*, § 378) in Lith. and Lett., as in Italic (§ 367). Suffix *-kla-* = Lat. *-clo-* *-culo-* : Lith. *ir-kla-s* Lett. *-ir-kl-s* 'oar', Lith. *sė-klà* Lett. *sē-kla* 'seed' (cp. Lat. *sae-clu-m* *sae-culu-m*), Lith. *gany-klà* Lett. *gani-kla* 'pasture, cattle-range'. The previous stage *tl* was preserved in Prussian : *eb-sentliuns* 'having marked' opposed to Lith. *žėn-kla-s*

'mark' (Burda Kuhn-Schleicher's Beitr. VI 245). Cp. also the loan-word Lith. *turklėli-s* 'turtle-dove' (from which *kurklėli-s*), which is still *turtlelis* in Bretken.

k for *t* in East Lith. (Godlewa) *rykmetys* fr. *ryt-metys* 'the early morning' and in West Lith. *tiknaga-s* from *tānaga-s* 'fire-stone, flint'; to which also *sėkma-s* 'septimus' (cp. § 345)?

§ 378. Indg. *d*. Lith. *dirti* 'to skin', O.Bulg. *derq* 'I skin, tear': Skr. *dr-ṇā-mi* 'I burst, tear', Gr. *δέρω* 'I skin', Cymr. Corn. *darn* 'bit, portion', Goth. *ga-taira* 'I tear, destroy', rt. *der-*. Lith. *raudà* 'lamentation', O.Bulg. *rydaja* 'I lament': Skr. *rudāmi* 'I mourn, weep', Lat. *rudō* 'I bray, roar', Ags. *reótan* OHG. *riozan* 'to mourn, weep'. Lith. *grūda-s* 'corn' *graudū-s* 'brittle, fragile', O.Bulg. *gruda* 'clod': O.Icel. *grautr* OHG. *gruzzi* 'grit'. Lith. *piṛdi-s* 'crepitus ventris': Skr. *pārdatē* Gr. *πέφεται* 'breaks wind', OHG. *ferzan* 'to break wind', rt. *perd-*.

gl from *dl* (cp. *kl* from *tl*, § 377) in Lith. and Lett. Lith. *ėglė* 'fir' beside Pruss. *addle* Polish *jodła*; *d* = Indg. *d* or *dh*? Lett. *segli* pl. 'saddle' fr. *sedli*, rt. *sed-*. Cp. Kašub. *żagło* = Polish *żądło* 'edge, point' with suffix *-dło-* = Indg. *-dhlo-*.

§ 379. Indg. *dh* = prim. Baltic-Slav. *d*. Lith. *dė-dė* 'uncle' *dė-da-s* 'old man', O.Bulg. *dě-dŭ* 'grandfather': Gr. *τή-θη* 'grandmother', *τη-θί-ς* 'aunt' (τ- fr. θ-, § 496), *θεῖο-ς* 'uncle'. Lith. *dabinū* 'I adorn, clean', O.Bulg. *doba* 'opportunitas' *dobrŭ* 'good': Goth. *ga-dabiþ* 'it is fit, becoming' *ga-dōfs* (st. *ga-dōba-*) 'becoming, proper', Lat. *faber* 'skilful, workman'. Lith. *vedū* O.Bulg. *veda* 'I lead, lead home': Skr. *vadhū-ṣ* 'bride, maiden', O.Ir. *fedim* 'I bring, lead'.

Rem. O.Bulg. *žegq* 'I burn' cannot be separated from Lith. *degū* Skr. *dāhāmi* etc., rt. *dhegh-* (§ 376). *deg-* must have become *geg-* (whence *džeg-* *žeg-*, see § 463) by assimilation in prim. Slavonic. This is shown by Russ. *iz-gaga* 'heart burn' (Leskien Handbuch² p. 12).

3. Palatal Explosives¹⁾.

§ 380. Indg. *k̃*, (*k̃h*), *ġ*, *ġh* usually appear in Greek, Ital., Keltic, and Germanic as explosives or as such sounds, for which

1) On the palatal and velar explosives in the Indg. languages see Ascoli *Fonologia comparata del sanscrito del greco e del latino*, Torino

explosives are to be presupposed as the immediately previous stage; whereas in Ar., Armen., Baltic-Slav., and Albanian they usually appear as spirants (in Armen. at the same time as affricatae) or their continuations.

It is possible and not improbable, that this diversity reflects a prim. Indg. difference of articulation, that the original explosives were spoken with a spirantal colouring (as affricatae?) in one portion of the Indg. parent language, whilst they remained pure in the other. This dialectical difference was then transmitted to the individual developments. Cp. § 417.

We classify the individual languages in the following §§ in accordance with this difference and give below an abstract of the usual representation of the palatals in the various languages.

Idg.	Gr.	Ital.	O.Ir.	Germ.	Skr.	Av.	Arm.	Alb.	Lith.	Slav.
\tilde{k}	κ	c	c	$k, \chi(h), g \text{ } \mathfrak{z}$	$\tilde{s}, \tilde{\mathfrak{z}}$	s, \tilde{s}	s	s	sz	s
\tilde{g}	γ	g	g	k	$j, (\tilde{z})$	z, \tilde{z}	c	δ	\tilde{z}	z
\tilde{gh}	χ	h, g	g	$g \text{ } \mathfrak{z}$	h	z	j, z	δ	\tilde{z}	z

e Firenze 1870 (translated by Bazzigher and Schweizer-Sidler under the title 'Vorlesungen über die vergleich. Lautlehre des Sanskrit etc.', Halle 1872) p. 107 ff.; Studj critici II (1877) p. 25 ff.; Havet Revue critique 23. Nov. 1872, 7. Mar. 1874, Mém. de la soc. de lingu. II 261 ff.; Fick Die ehemalige Spracheinheit der Indogerm. Europa's 1873 p. 1 ff.; J. Schmidt Jen. Lit.-Zeit. 1874 Art. 14. 1875 Art. 588. 1877 Art. 247, Kuhn's Ztschr. XXV 64 ff.; H. Möller Die Palatalreihe der idg. Grundspr. im Germ., Leipz. 1875, Kuhn's Ztschr. XXIV 427 ff.; Windisch Kuhn-Schleicher's Beitr. VIII 25 ff.; Hübschmann Kuhn's Ztschr. XXIII 21 ff. 384 ff.; Benfey Gött. Nachr. 1876 p. 297 ff.; Leskien Declin. im Slav.-Lit. und Germ. 1876 p. XXIV f.; G. Curtius Stud. VII 267 ff.; Bezenberger in his Beitr. II 151 ff. VI 236; K. Verner in Morph. Unt. I 116 ff.; F. Müller Sitzungsber. d. Wiener Ak. 1878 p. 3 ff.; Kluge Beitr. zur Gesch. d. germ. Conj. 1879 p. 42 ff.; Frödhe Bezenb. Beitr. III 12 ff.; Collitz ibid. 177 ff.; d'Arbois de Jubainville Mém. de la soc. de lingu. IV 422 ff.; Osthoff Paul-Braune's Beitr. VIII 256 ff.; the Auth. Kuhn's Ztschr. XXV 306 f., Morph. Unt. IV 407 ff.; Bersu Die Gutturalen und ihre Verbindung mit \mathfrak{z} im Lateinischen, Berlin 1885.

Indo-Germanic prim. period.

§ 381. Tenuis *k̃*. **k̃mtó-m* 'hundred': Gr. ἑκατόν Lat. *centu-m* O.Ir. *cēt* Goth. *hund* + Skr. *śatá-m* Lith. *szimta-s*. **syékuro-* 'father-in-law', **syékrú-* 'mother-in-law': Gr. ἐνυόος, ἐνυόά, Lat. *socer*, *socrus*, O.Corn. *hwigeren*, *hweger*, Goth. *svaihra m.*, OHG. *swigar f.* + Skr. *śváśura-s*, *śvaśrú-ś*, Arm. skesur f. Lith. *szeszura-s m.*¹⁾; on the initial Skr. *ś-* Arm. *sk-* Lith. *sz-* see §§ 557, 4. 562. 587, 2. Rt. *ueik-* 'enter in': Gr. φοῖκος οἶκος 'house', Lat. *vīcu-s*, Goth. *veihs* (gen. *veihsis*) n. 'district' + Skr. *viśámi* 'I enter, come', Alb. rise pl. 'places', Lith. vėszėti 'to be a guest, tarry', O.Bulg. vǐsǐ 'village'. **októu* **októ* 'eight' (cp. § 645 final 1): Gr. ὀκτώ Lat. *octō* O.Ir. *ocht n.* Goth. *ahtáu* + Skr. *aṣṭáu aṣṭá* Lith. *asztāni* O.Bulg. *os-mǐ*.

Seldom in suffixal elements. **juuyn-kós* or **juuyn-kós* 'youthful': Lat. *juvencu-s* O.Ir. *ōac ōc* (§§ 137. 174) Goth. *juggs* (*jūggs*?) + Skr. *yuvaśá-s*.

§ 382. Media *ġ*. *ġen- ġnō-* 'get to know, know': Gr. γινῶν-σκω 'I perceive', Lat. *gnō-scō nō-scō*, O.Ir. ad-ġēn-sa perf. 'cognovi', Goth. *kann* 'I know' + Skr. *jā-ná-mi* 'I perceive, know' (§ 253) Av. *a-zainti-* 'knowledge, explanation', Arm. *can-eay aor.* 'I knew', Lith. žin-óti 'to know' O.Bulg. zna-ti 'to know'. Rt. *melġ-* 'strip off, milk': Gr. ἀμέλω Lat. *mulgeō* O.Ir. *bligim* OHG. *milchu* 'I milk' + Skr. *mṛjāti* 'wipes, rubs, cleans', part. pass. *mṛṣṭá-* Av. mar'zaiti 'strips', Lith. *mélžu* O.Bulg. *mlǔza* 'I milk'.

Prim. Indg. suffixes with *ġ* seem not to occur.

§ 383. Media asp. *ġh*. Gr. χιών 'snow' χειμῶν 'winter', Lat. *hiems*, O.Ir. *gam* O.Cymr. *gaem* O.Corn. *gouf* 'winter' (cp. § 392) + Skr. *hiná-* 'frost, snow' Av. zima- 'winter', Arm. juen 'snow', Alb. dimëm 'winter', Lith. žemà O.Bulg. zima 'winter'. Rt. *ueġh-* 'vehere': Gr. ὄχο-ς 'carriage', Lat. *vehō*, O.Ir. fēn 'carriage' (§ 526), Goth. *ga-vigan* 'to move' + Skr. *váhati* Av.

1) Kurschat writes *szesziüras*. The palatal pronunciation of the second *sz* is probably due to assimilation with the initial *sz-* which had been palatalised by the following *e*.

vazaiti 'leads, goes', Alb. *viéth* 'I steal' (orig. 'I lead away'), Lith. *vežù* O.Bulg. *veza* 'veho'.

Prim. Indg. suffixes with *gh* seem not to occur.

a. The language-group with explosives.

Greek.

§ 384. Indg. *k̥*. καρδ-*lā*, Ion. καρδίη 'heart': Lat. *cor* O.Ir. *cride* Goth. *hairtō* 'heart' + Skr. *śraddhā*-f. 'confidence' (§ 282), Arm. *sirt* Lith. *szirdi-s* O.Bulg. *srǫdīce* 'heart'. κλυ-τό-ς 'renowned': Lat. *in-clutu-s* O.Ir. *cloth* 'renowned', OHG. *Hlot-hari* Lothar = *Κλυτό-στρατο-ς + Skr. *śru-tá-s* 'heard, renowned', Arm. *lu* 'audible' fr. **slu*-p (s. Hübschmann, Armen. Stud. I 33), O.Bulg. *slov-o* 'word', rt. *kley-*. εἴκοσι, Bæot. etc. *ἑῖκατι* 'twenty': Lat. *vicesimu-s*, O.Ir. *fiche* 'twenty' + Skr. *viśatī*-ś 'the number twenty', Arm. *Ēsan* 'twenty' fr. **gsan* **gisan* (*g*- fr. *u*-, § 162). πόρκο-ς 'pig': Lat. *porcu-s* O.Ir. *orc* OHG. *farh farah* + Lith. *pařsza-s* O.Bulg. *prase* 'pig'.

From *k̥u* arose ππ, which was simplified to π initially. ἵππο-ς 'horse': Skr. *áśva-s*. πάντ- 'all': Skr. *-śvant-*. See § 166 p. 147.

k̥i became σσ, ττ. μάσσων 'longer': Av. *masyā* 'greater'. See § 489.

Prim. Gr. κτ = Indg. *k̥t* and *qt* became ττ in Cret. ἐργο-διώττᾱ-ς = Att. ἐργο-διώκτη-ς 'taskmaster'. νυττί loc. sg. = Att. νυκτί (with *qt*, § 427 c).

§ 385. Indg. *g̊*. γεύω 'I let taste': Lat. *gus-tu-s*, O.Ir. *to-gu* 'choice', Goth. *kiusa* 'I test, choose' + Skr. *jōṣ-a*- Av. *zaoṣ-a*- m. 'favour, kindness', rt. *g̊eys-*. ὀρέγω 'I reach': Lat. *regō*, O.Ir. imper. *ē-rig* 'stand up', Goth. *uf-rakja* 'I reach up' + Skr. *rāj-iṣṭha*- Av. *raz-išta*- 'straightest, most just', Lith. *rāžyti-s* 'to keep on stretching oneself'. ἔργον 'work': Goth. *vairkja* 'I work, effect' + Av. *ver̥zyēiti* 'effects, completes', Arm. *gorc* 'work', rt. *uerḡ-*.

g̊i became ζ (σδ), δδ. ἀζομαι 'I stand in awe of', to ἄγ-ω-ς, rt. *iag-*. See § 493.

§ 386. Indg. *gh* = prim. Gr. *kh*. *χαμαί* 'on the ground': Lat. *humu-s*, *homō* (= *ὁ ἐπιχθόνιος*), Goth. *guma* 'man' + Skr. *jm-ás* (§§ 469, 8. 554 rem. 1) Av. *z'm-ō* (§ 407) gen. 'of the earth', Alb. *de* 'earth', Lith. *žėmė* O.Bulg. *zemlja* 'earth'. *χείρ* 'hand': Arm. *jer'n* 'hand' pl. *jer-kē*. *ἔχω* 'I have, hold' fut. *σχή-σω*: Goth. *sigis* 'victory' + Skr. *sáhas-* Av. *hazah-* n. 'strength, power, victory'. *σπέρχω* 'I hurry on, drive': + Skr. *spṛhayati* 'eagerly longs for' Av. *sper*zaitē* 'strives'.

gh became σσ, ττ. *ἄσσοι* 'nearer' to *ἄγχι*, rt. *angh-*. See § 497.

Italic.

§ 387. Indg. *k̄*. Lat. *cēnseō*, Osc. *censamur* 'censetor': + Skr. *śās-a-ti* 'recites, praises'. Lat. *ci-s ci-ter*, Umbr. *ši-mu ši-mo* 'ad citima, retro' *šive* 'citra': perhaps Gr. neut. nom. acc. -*κι(δ)* in *οὐ-κι ναί-κι πολλά-κι* (Osthoff Morph. Unt. IV 241 f.), O.Ir. *ce* 'on this side', Goth. *hi-mma* 'to this' + Arm. -*s* 'this' (suffixed pronoun), Alb. *si-viēt* 'in this year', Lith. *szl-s* O.Bulg. *st* 'this'. Lat. *clī-nō clī-tellae*, Umbr. *kletram* 'lecticam': Gr. *κλίνω* 'I lean, bend', O.Ir. *cloen* 'slant, unjust, bad', Goth. *hlúins* 'hill' + Skr. *śráy-a-ti* 'leans against, lays on', Lith. *szlāita-s* 'mountain-slope', rt. *klej-*. Lat. *decem*, Umbr. *desen-duf* 'duo-decim' *tekuries dequrier* 'decuriis' Osc. *dekmanniús* 'decumanis': Gr. *δέκα* O.Ir. *deich n-* Goth. *taihun* + Skr. *dāśa* Arm. *tasn* Lith. *dēszimt* O.Bulg. *desetī* 'ten'. Lat. *equo-s*, Umbr. *tra ekvine* 'trans equinum' (cp. § 431 a): Gr. *ἵππο-ς* O.Ir. *ech* 'horse', Goth. *aihvā-tundi* *þáros* + Skr. *dāśva-s* 'horse', Lith. *aszva* 'mare', Indg. **ekwo-s* **ekwa*. Lat. *queror questu-s*: + Skr. *śvās-i-mi* 'I breathe, snort, sigh', rt. *k̄wes-*.

-*cf-* became -*ff-* in Lat.: *effeō efficiō*; the *c* in *ec- ex* was probably *k̄*.

Prim. Ital. *k* (partly = Indg. *q*, § 430) became a sibilant in Umbrian before *e-* and *i-* vowels, which cannot be more closely defined: *š*, *ś* *s* (§ 23). Besides *šimu* etc. already named cp. further: *tišit* 'decet', to Lat. *decet decus*, Skr. *daśas-yā-ti* 'does honour, is gracious'; *curnāse* 'cornice' beside *curnaco* 'cor-

nicem'; *fašia* 'faciat' beside *fakust* 'fecerit'. With this may be compared the treatment of Lat. *c* before palatal vowels in the Romance developments, as Italian *cento* Fr. *cent* from *centum*.

Rem. Lat. *c* had the pronounciation *k* also before *e*- and *i*-vowels down to the Middle Ages, thus *kentum*, *kito*. Cp. Seelmann Die Ausspr. d. Lat. 332 ff.

§ 388. Indg. *ġ*. Lat. *ġī-ġn-ō* *malī-ġn-u-s* (§ 619) *ġenu-s*, Osc. Genetaī 'Genetrici': Gr. *γί-γν-ο-μαι* 'I become' *γέν-ος* 'race', O.Ir. *ro ġēnair* 'natus est' *ġein* 'birth', Goth. *kuni* 'race' + Skr. *ján-as-* n. 'race' Av. *zī-zan-anti* 'they beget, bring forth', Arm. *cin* 'birth', rt. *ġen-*. Lat. *rēg-is* gen. sg., Osc. *regatureī* 'rectori', Marruc. *regen*[a dat. 'reginae': O.Ir. *rīg* gen. 'of a king' Gall. *Bitu-rīges* + Skr. *rāj-* (nom. sg. *rāj*, § 401 rem. 2) *rāj-an-* 'king' *rāṣṭi* 'shines forth, distinguishes himself'. Lat. *argentu-m*, Osc. *aragetud* abl. 'argento': Gr. *ἀργής* 'bright, white', *un-airkns* 'impure' OHG. *erchan* 'certus, egregius, right, pure' + Skr. *árjuna-s* 'bright, white, silver-coloured' Av. *ar'zah-* n. 'the clear day, day-light', Arm. *arcat* 'silver'. Lat. *glōs*: Gr. *γαλόως* + O.Bulg. *zlūva* 'husband's sister'.

§ 389. Indg. *ġh* = prim. Ital. *χ*. Lat. *humu-s* *homō*, Umbr. *hondra* 'infra' *hondomu* 'infimo' Osc. *huntru* 'infra' (s. § 207), Umbr. *homonus* 'hominibus' Osc. *humuns* nom. 'homines': Gr. *χαμαί* etc., see § 386. Lat. *hor-tu-s* *co-hors*, Osc. *húrtúm* 'hortum': Gr. *χόρτο-ς* 'grass, hay, fodder, feeding-place, courtyard', O.Ir. *gort* 'seges' *lub-gort* 'vegetable-garden' + Lith. *šaĩ-di-s* m. 'pasture for horses, pasture-ground' Pruss. *sardi-s* 'a place enclosed by a hedge'¹). Lat. *vehō*, Osc. *vehia* 'plaustrum' (Paulus F.): Gr. *ὄχο-ς* etc., see § 383. Lat. *mih̄* and Skr. *māhyam* 'mihī' probably contained Indg. *ġh*, the same sound as in Skr. nom. *ahām*.

Concerning the dropping of Lat. *h* = *ġh* see § 510.

f also occurs instead of Lat. initial *h*, e. g. *folus* beside *holus helus*: O.Ir. *gel* 'white', OHG. *gelo* 'yellow' + Skr. *hári-* § Av.

1) It is uncertain whether Goth. *gards* 'yard, house, family' and OHG. *garto* also belong here. Lith. *gaĩda-s* and O.Bulg. *gradŭ* seem to have been borrowed from Germ. See § 467, 2 and Kluge Etym. Wtb. der d. Sprache under *Garten*.

zairi-s 'yellowish', Lith. *želiū* 'I grow green' O.Bulg. *zeliže* n. 'greens, vegetables'; *fariolu-s* beside *hariolu-s haru-spex*: Gr. *χορδή* 'a string of gut', O.Icel. *garner garnir* pl. 'entrails' + Lith. *žarnà* 'gut'. Along with Osthoff (Morph. Unt. IV 99, cp. Danielsson in Pauli's Altital. Stud. III 144, Bersu Die Gutturalen im Lat. 131) we do not hold these forms with *f* as also *foști-s* beside *hosti-s* (§ 430) for Lat., but for Sabine.

Rem. I am in doubt about the *f* in Lat. *fundō*, to Goth. *giutan* 'to pour', Gr. *χίω* 'I pour' *χύ-τρεα* 'holy water', Av. *zao-ḫrā-* 'libation'. One might regard the *f* as having regularly arisen in *in-fundō cōn-fundō*, and then carried over to the uncompounded form, if the assumption had a firmer basis, *infumu-s infimu-s* may have come from an older **in fumō = in humō* (cp. Umbr. *hon-dra* above), which, being regarded as a superlative, was followed by the forms *inferu-s inferior*. The *f* in the Lat. words cannot be regularly connected with the dental in Skr. *adhās* 'below' Goth. *undar* 'under'.

Lat. *ng* fr. prim. Ital. *nx*. *angō*: Gr. *ἄγχω* 'I press tight, strangle', O.Ir. *cum-ung* 'narrow', Goth. *aggvu-s* 'narrow' (with *v* from the oblique cases) + Skr. *āhas-* Av. *aṣah-* n. 'distress, need', Arm. *anjuk* (*ancuk*) 'narrow', O.Bulg. *aṣa* 'bond, fetter'. *mingō* (beside *mējō*, probably fr. **mējhō*, § 510): Gr. *οὐχέω* 'I make water', Ags. *mīzan* O.Icel. *mīga* 'to make water' + Skr. *mēhati* Av. *maṣzaiti* 'makes water', Arm. *mēz* (gen. *mizi*, *mizoy*) 'urine', Lith. *mīžalāi* pl. 'urine'.

O.Irish.

§ 390. Indg. *k* = prim. Kelt. *k*. O.Ir. *clū* 'renown' *cluas* 'ear', Mid.Cymr. *clusteu* pl. 'ears': Gr. *κλυ-τό-ς* etc., see § 384. O.Ir. *imm-chom-arc* 'question, an asking', O.Cymr. *di-erchim* 'ad poscendum' (for the loss of the *p*- see § 339): Lat. *prec-ēs* pl., Goth. *frathnan* 'to ask' + Skr. *praś-nā-* Av. *fraś-na-* (§ 398) 'question, an asking', Arm. *harsn* (gen. *harsin*) 'bride', Lith. *praszyti* O.Bulg. *prosiiti* 'to beg, request'. O.Ir. *derc* 'eye', Mid.Bret. *derch* 'aspectus': Gr. *δέχομαι* 'I see', Goth. *ga-tarh-jan* 'to mark out' + Skr. *dadārśa* perf. 'I saw', Arm. *tesane-m* 'I see'.

O.Ir. *brēc* (read *brēg*) 'lie, deceit' with loss of *n* before *c*: + Skr. *bhraṣa-s* 'downfall, loss, a perishing'. See §§ 212. 513.

O.Ir. *fiche* Mid.Cymr. *ugeint* 'twenty': Gr. *ἑξήκοντα* etc., § 384. See § 514.

O.Ir. *ocht* 'eight' probably with prim. Kelt. *cht*: Gr. *ὀκτώ* etc., § 381. See § 517.

O.Ir. *dess* Cymr. *deheu* 'dexter, australis', as regards the suffix to Goth. *taihsva* 'dexter', further Gr. *δεξιό-ς* Lat. *dexter* + Skr. *dákṣiṇa-* Av. *dašina-* 'dexter', Lith. *deszinė* 'dextera' O.Bulg. *desnŭ* 'dexter', Indg. **deks-*. See § 517.

In Irish *k* and *q* fell together in *c*. Whereas in the Britt. branch and in Gall. they can still mostly be distinguished, since in the latter *q* had become *p* (§§ 435. 436). *p* arose from Indg. *kū* in Cymr. *ebol* 'foal' = O.Cymr. **epaul*, Gall. *epo-* (*Epo-rédia*) 'horse' beside O.Ir. *ech*.

§ 391. Indg. *g* = prim. Kelt. *g*. O.Ir. *gein* 'birth', Cymr. *geni* 'nasci': Gr. *γένος* etc., see § 388. O.Ir. *gnāth* 'known, accustomed, usual', Cymr. *gnawt* 'habitus': Gr. *γνώ-* etc., see § 382.

O.Ir. *ato-m-aig* 'me adigit' *agat* 'agant': Gr. *ἄγω* 'I drive, lead', Lat. *agō*, O.Icel. *aka* 'to drive' + Skr. *ájati* Av. *azaiti* 'drives', Arm. *acem* 'I bring, lead', rt. *ag-*. See § 522.

§ 392. Indg. *gh* = prim. Kelt. *g*. O.Ir. *gam* (from **giam-*, older **gi(ī)am-*)¹⁾ O.Cymr. *gaem* = (fr. **geam-*, older **gi(ī)am-*) 'winter': Gr. *χιών χειμῶν* etc., see § 383. *cum-ung* 'narrow': Gr. *ἄγχω ἄγχι* etc., see § 389.

O.Ir. *ligim* 'I lick' *ligur* 'tongue': Gr. *λείχω* 'I lick', Lat. *lingō*, Goth. *bi-lāigō* 'I lick' + Skr. *lēh-mi* 'I lick' 3. sg. *lēdhi*, Arm. *liz-u-m* Lith. *lēžiū* 'I lick' O.Bulg. *lizati* 'to lick'. O.Ir. *bri* gen. *breg* 'rising ground' Gall. *brigi-* in *Brigiani Are-brigium* etc.: Goth. *baīrgahei* 'chain of mountains' + Skr. *bṛhānt-* Av. *ber²zant-* 'great, high', rt. *bhergh-*. See § 526.

Germanic.

§ 393. Indg. *k̥*. Goth. *skei-nan* OHG. Ags. *scīnan* O.Icel. *skína* 'to shine' OS. *sci-mo* MHG. *scheme* 'shadow': Gr. *σκά*

1) Thurneysen conjectures, that the form *gam* was formed through the influence of *sam* 'summer'.

'shadow' *oxīqo-v* 'parasol' + Skr. *chāyā-* 'shadow, glimmer' (cp. Mod.Pers. *sāyah*). Suffix *-sko-* *-skā-* OHG. *forsca* 'inquiry, question' prim. Germ. **fur(χ)-skō-* f. : Lat. *poscō* fr. **por(c)-scō* + Skr. *prchāmi* Av. *per'sāmi* 'I ask', Skr. *prchā-* 'question, inquiry', rt. *prek-*, weak grade form *prk-*.

Goth. *hund-s* OHG. *hunt* Ags. *hund* O.Icel. *hundr* 'hound, dog' : Gr. *κύων* (gen. *κυωνος*) O.Ir. *cū* (pl. *coin*) Cymr. *ci* (pl. *cwn*) + Skr. *śvan-* *śun-* Av. *span-* *sūn-* Arm. *šun* (gen. *šan*) 'dog'. Goth. *ga-teihan* 'to announce, tell, relate' OHG. *zīhan* 'to accuse of' : Gr. *δείκνυμι* 'I show' *δίκη* 'order, law', Lat. *jū-dic-dīcō* + Skr. *dēśāyāmi* Av. *daēsayēmi* 'I show, teach', rt. *deik-*. Goth. OHG. *fahan* O.Icel. *fā* 'to seize' fr. prim. Germ. **fan-χana-n* (§ 214 p. 181) : Gr. *πάσσαλο-ς* fr. **παχάλο-ς* (§ 489), Lat. *pāx paciscor* + Skr. *pāśa-s* 'snare, cord', rt. *pāk-*.

Goth. *fagrs* 'befitting' OHG. *fagar* 'beautiful' OHG. *fuogen* 'to unite' *fang* 'capture' from the same rt. *pāk-*. OHG. *swigar* Ags. *swezer* 'mother-in-law' : Gr. *ἐκυρά* etc., see § 381.

§ 394. Indg. *ġ*. Goth. *kniu* (gen. *knivis*) OHG. *chniu kniu* Ags. *cneó* 'knee' : Gr. *γυν-πετεῖν* 'to fall on the knees, to become helpless' *γόρν* 'knee', Lat. *genu* + Skr. *jñu-bādh-* 'bending the knees' *jānu* 'knee' Av. *fra-šnu* 'knee bent forward' (§ 403) *zanva* pl. 'knees', Arm. *cunr* 'knee'. Goth. *uf-rakjan* 'to stretch on high' OHG. *recchen* MHG. *rechen* 'to stretch' : Gr. *ὀρέγω* etc., s. § 385. OHG. *boch boc* Ags. *bucca* O.Icel. *bokkr bukkr* 'buck' were from a weak stem-form **bhug-n-* (§ 534) : + Av. *būz-a-* 'he-goat', Arm. *buc* 'lamb'.

§ 395. Indg. *ġh*. Goth. **gans* 'goose' (hence Spanish *ganso*), OHG. *gans* O.Icel. *gās* 'goose' : Gr. *χίψ* Lat. *anser* = *hanser* + Skr. *hṣā-s* Lith. *žāsi-s* 'goose' (on O.Bulg. *gqsi* s. § 467, 2). Goth. *gaggs* 'street, way' OHG. OS. *gang* O.Icel. *gangr* 'way, passage' : + Skr. *jānghā-* Av. *zanğa-* 'heel-bone', Lith. *ženġiū* 'I stride', Indg. *ġherogh-*.

Goth. *deigan* 'to form of clay, mould', OHG. *teig* O.Icel. *deig* 'dough' : Gr. *τεῖχος* 'a wall', Lat. *pingō* + Skr. *dēhī* 'earth thrown out, rampart' *san-dēhā-s* 'a cementing' Av. *uz-daēza-* 'accumulation', Arm. *dēz* 'heap', rt. *dheigh-*.

b. The language-group with spirants or affricatae.

Aryan.

§ 396. Indg. *ḱ*, *ǵ*, *ǵh* were generally represented by *ś*, *ž*, *žh* i. e. by palatal *ś*-(*sh*)-sounds in the prim. Aryan period. *ś* and *ž* have the same sound as the 'softened' *ś* (*sz*) and *ž* (caused by the following of *i*- or *e*-vowels) of the Slavonic and Lithuanian languages.

Prim. Ar. *št*, *šk* and *žd* *ždh*, *žbh* became developed to *st*, *sk* and *zd* *zdh*, *zbh* probably already in prim. Aryan. See §§ 399. 404.

The value of Indg. *sk* and *ks* cannot be precisely defined for the prim. Ar. period. See §§ 400. 401.

§ 397. Indg. *ḱ*. Prim. Ar. *ś* (§ 396) mostly remained unchanged in Sanskrit. It became *s* in Iranian. For this *s* there appears in O.Pers. mostly (initially before and medially between vowels), and in Av. occasionally *p*, which, according to Bartholomae, is only a graphical variety of *s*.

Skr. *śās-a-ti* 'praises, recites' Av. *saṁh-aīṭē* 'names himself' O.Pers. *a-pah-a* 'he spoke, said, announced': Lat. *censeō*. Skr. *śūra-* Av. *sūra-* 'strong', Av. *aiwi-pūra-* 'over strong, over powerful': Gr. *ἄ-κῡρoς* 'without authority, invalid'. Acc. sg. Skr. *viś-am* Av. *vīs-em* O.Pers. *viṣ-am* 'clan, village community': Alb. *vise* etc., see § 381. Skr. *vāś-a-s* 'will, pleasure', Av. *vas-ō* acc. sg. n. (st. *vasah-*) adv. 'at pleasure' O.Pers. *vasaiy* loc. sg. (st. *vasa-*) adv. 'very, much' (orig. 'at pleasure'): Armen. *vasn* 'on account of' + Gr. *ἐκὼν* 'voluntary', rt. *mek-*. Skr. *ás-man-* Av. O.Pers. *as-man-* 'stone, sky': + Gr. *ἄκ-μων* 'anvil, thunder-bolt'. Skr. *śvētá-* Av. *spaeta-* 'white': Lith. *szvaityti* *szvaitinti* 'to make bright' O.Bulg. *svētŭ* 'light' + Goth. *hveits* 'white', rt. *kueit-* *kueid-*.

§ 398. Prim. Ar. *śn* and *pś* became *šn* and *fś* in Iranian (on *f* from *p* see § 473.)

Prim. Ar. *śn*. Av. *frašna-* = Skr. *praśná-* 'question': Arm. *harsn* etc., rt. *prek-*, s. § 390. Av. gen. sg. *aś-n-ō* = Skr. *á-śn-as*,

beside the strong stem-form *as-an-* = Skr. *ás-an-* 'stone' : Arm. *ves-an* 'whetstone' + Gr. *ἄσων-η* 'whetstone'. O.Pers. *vašna-* 'will, favour', to *vasaiy* etc., see § 397.

Prim. Ar. *pš*. Av. *haurva-fš-u-* 'the whole cattle' beside *pas-u-* = Skr. *paś-ú-* : Lat. *pecu*, Goth. *faihu* 'cattle', cp. § 313 p. 251.

§ 399. Prim. Ar. *št* = Indg. *kt* (§ 396) remained in Iranian, but became *št* in Sanskrit (cp. §§ 404. 556). Skr. *dišti-š* 'indication, prescription', Av. *a-dišti-š* 'direction, instruction' beside Skr. *dēśáyāmi* Av. *daēsayēmi* 'I show, teach' : Lat. *dictiō*, OHG. *in-ziht* 'accusation', cp. also Gr. *δειξι-ς* 'a showing', Indg. **dik-ti-s*, rt. *dejē-*, see § 393. 3. sg. Skr. *vášti* Av. *vašti* 'he wishes, desires' beside 1. sg. Skr. *vásmi* Av. *vas'mi*, from rt. *uek-*, see §§ 397. 398. Skr. *práṣṭu-m* inf. 'to interrogate', O.Pers. *ahi-frašti-* 'punishment by the sword', beside Skr. *praśná-* etc., see § 398.

Prim. Ar. *šk* = Indg. *kq* is found in Av. 3. pl. aor. act. *a-šk-ar** 'they run off, go away' beside 3. pl. pres. mid. *sac-intē* from rt. Ar. *šak- šac-*. Cp. Bartholomae Ar. Forsch. II 51 ff.

§ 400. Indg. *sk̥* became in Skr. *ch* (*cch*), Av. O.Pers. *s* (or *ḥ*, see § 397). Present suffix Skr. *-cha-* Av. O.Pers. *-sa-* = Gr. *-σxo-* Lat. *-sco-* : e. g. Skr. *gá-chā-mi* Av. *ja-sā-mi* fr. Indg. **gṃ-sk̥ō*, Gr. *βá-σxo*, from rt. *gem-* 'go' (§ 228); Skr. *pr̥chāmi* Av. *per'sāmi* O.Pers. *parsāmīy* fr. Indg. **pr̥k-sk̥ō*, Lat. *poscō* (**por(c)-scō*), from rt. *prek-* 'demand, beg, ask' (§ 288); O.Pers. *xšná-sā-tiy* = Lat. *gnō-sca-t* (cp. § 403). Cp. § 557,2.

Rem. Other examples in Bartholomae's Handb. d. altiran. Dial. § 146 and Kuhn's Ztschr. XXVII 366 ff., where (s)k̥h, and not Indg. *sk̥*, is regarded as the original form. This theory seems to us not to have sufficient foundation. Cp. §§ 475. 553.

§ 401. Indg. *k̥s* became in Skr. *kṣ*, and in Av. O.Pers. *š*. Skr. *vákṣi* Av. *vaši*, 2. sg. to Skr. *vásmi* Av. *vas'mi*, s. §§ 397. 398. 399. Skr. *dákṣiṇa-* Av. *dašina-* 'dexter' : Lith. *deszinė* etc., see § 390. Skr. *á-dṛkṣ-ata* 3. pl. indic. mid., Av. *dar's-a-ḥ* 3. sg. conj. act. of the *s*-aorist from rt. *derk-* 'see', cp.

Gr. (late) fut. *δέρομαι*. O.Pers. *niy-apišam* 'I wrote' s-aorist from rt. *peṭk-*: Av. *zaranyō-piš-* 'adorned with gold' *paēsa- paēsah-* 'ornament, decoration', Skr. *piśāmi* 'I adorn, form', O.Bulg. *pīsatī* 'to write' + Gr. *ποικίλο-ς* 'many-coloured', Lat. *pictūra*.

The prim. Ar. form might have been *šš*, since in Sanskrit Indg. *ks* fell together with Indg. *ss* (preceded by *i, u*) = prim. Ar. *šš*, cp. Skr. 2. sg. *dvēkṣi* (1. sg. *dvēṣ-mi* 'I hate'). Cp. § 556, 1.

Rem. 1. Observe that Indg. *ks* and *qs* fell together in *kṣ* in Sanskrit, whereas in Iranian (as in Balt.-Slav., § 414) they remained separate: *ks* = Iran. *š*, *qs* = Iran. *xš*. Cp. § 556, 1.

Rem. 2. Skr. final *ks* became *k* by § 647, 7, as nom. sg. *dīk* 'heavenly direction' (st. *diš-*), *ṛtv-ik* 'sacrificator' (st. *ṛtv-ij-*, rt. *ṛg-*). Forms as nom. sg. *spāt* 'spy' (st. *spāš-*), *viṭ* 'clan' (st. *viš-*), *rāt* 'king' (st. *rāj-* Indg. **rēg-*) were new formations after the analogy of the cases with *dh*-suffixes, see § 404 rem. 3. In Av. the regular continuation of Indg. *-ks* was not altered by the law of finals: e. g. *spaš* = Skr. *spāt* Lat. (*haru-*)*spex*; *ayā-varš* 'causing sins' to *ver-z-yēiti* 'works' rt. *yerḡ-*.

Rem. 3. *κτ* (not *ξ*) occurs in a number of Gr. words, opposite to Skr. *kṣ* = Iran. *š* = Lat. *x*, e. g. Skr. *tákṣā* 'carpenter': Gr. *τέκτων*. On this correspondence cp. § 554 extr.

No trace of the first *k̂* in the Indg. combination *k̂sk̂* has remained in Aryan, it became assimilated to the following *s* at an early period. Cp. Skr. *prchāmi* Av. *per'sāmi* = Indg. **prk-skō* with Skr. *gāchāmi* Av. *jasāmi* = Indg. **gm-skō* (§ 400).

§ 402. Indg. *ḡ*. Prim. Ar. *ḡ* (§ 396) mostly became *j* in Sanskrit, and *z* in Iranian. *d* i. e. *ḍ* is often written for *z* in O.Pers., cp. *p̄* beside *s* § 397.

Skr. *jān-as* n. 'race' *jān-a-s* 'man, people', Av. *zī-zan-anti* 'they beget, bring forth' O.Pers. *parāv-zana-* 'populous': Lat. *genus* etc., s. § 388. Skr. *vājra-s* 'thunder-bolt of Indra' Av. *vazra-* 'club' O.Pers. *vazra-ka-* 'great, powerful', Skr. *vāja-* Av. *vāza-* m. 'strength': Gr. *ὑγιής* 'healthy', Lat. *vegeō*, Goth. *us-vakjan* 'to wake up', rt. *ueḡ-* 'be active, strong'. Skr. *jōṣa-* Av. *zaōša-* m. 'favour, kindness', Skr. *jōṣtār-* 'loving' O.Pers. *dauštar-* 'friend': Gr. *γείω* etc., see § 385. Skr. *jráy-as-* n. 'surface, extent', Av. *zrayah-* n. O.Pers. *drayah-* *draya-* n. 'sea': + Lat. *gli-scō*. (i p).

§ 403. Prim. Ar. *žn* became *šn* in Iranian. Av. *fra-šnu-* 'knee bent forwards' beside *zanva* pl. 'knees' etc., s. § 394. Av. *duš-varšnah-* 'evil doer' beside *ver-z-yēti* 'works, effects, carries out' etc., s. § 385.

xšn appears for *šn* in O.Pers. *xšnā-sā-tiy* = Lat. *gnō-sca-t* (*s* = Indg. *sk̥*, § 400) from Indg. *gnō-* 'get to know' (s. § 382), as also in Av. *a-xšnu-* beside *a-šnu- fra-šnu-* and others. Cp. Bartholomae Handb. § 100 rem. 3.

Rem. *yasna-* 'offering' instead of **yašna-* (Skr. *yajñā-* 'offering', rt. *iağ-*) received the dental sibilant from analogy with such forms as 3. sg. pres. *yazaitē*.

Prim. Iran. *zm* = prim. Ar. *žm* became *sm* in Av. *rāsmān-* 'column of an army' besides *rāzayēti* 'puts in order': Gr. *ὀρέγω* etc., see § 385.

The transition of *žn* to *šn* and of *zm* to *sm* points to a voicelessness of the nasal.

§ 404. Prim. Ar. *žd ždh, žbh* (§ 396) became *žd, žb* in Iranian (§ 481); in Sanskrit they first became *ṣḍ, ṣbh* (cp. §§ 399. 591), then *ṣ* was dropped before *ḍ dh* with ('compensation lengthening'), while before *bh* it passed into *ḍ*.

1. *žd*. Here will come Skr. *mṛdā-ti* 'is gracious, pardons, spares', *mṛdāka-* n. 'grace, pardon, mercy' Av. *mer-ždika-* n. 'grace, pardon, mercy', in case they belong to the rt. *merǵ-* 'wipe off' (Skr. *mṛj-ā-ti* 'wipes off, cleanses from guilt', Av. *mar-z-aiti* 'wipes, cleanses'); the original form would then be an old syntactical combination **mṛǵ dō-* 'grant a purity from sins'. Skr. *mṛṣ-ya-tē* 'forgets' *marṣāyatē* 'bears patiently, excuses, pardons' Lith. *mirsz-ti* 'to forget' can equally well be regarded as being from an old **mṛs dō-* (by assimilation **mṛz dō-*) 'grant a forgetting, excuse' (§ 591).

2. *ždh*. Av. *važdri-š* 'promoter, accomplisher', to *vazaiti* = Skr. *vāhati* 'vehit', fr. **ueǵh+tri-*. Av. (Gāp.) *ger-žda* 3. sg. pret. mid. to *ger-zaiti* 'complains, implores' = Skr. mid. *gārhatē* 'complains, blames', fr. prim. Ar. **grždha* or **ghrždha* i. e. **grǵh-(ghrǵh-)+to*. Skr. *lēḍhi* 'licks' (1. sg. *lēhmi*) fr.

prim. Ar. **laiǰdhi* i. e. **leiǰh+ti*, part. pass. *līdḥá-* 'licked' from prim. Ar. **liǰdhá-* i. e. **liǰh+to-*. Skr. *ūḍha-* to *vāhami* 'veho', fr. prim. Ar. **uǰdha-* i. e. **uǰh+to-*. Skr. *ḍṛdḥá-* to *dṛhyāmi* 'I fasten; stand firm', fr. prim. Ar. **dhrǰdha-* (§ 480) i. e. **dhrǰh+to-*, cp. Lat. *forti-s* *forti-s*. Skr. *sādhá-* to *sāhatē* 'masters', fr. prim. Ar. **sāǰdha-*. Skr. *bādhá-* 'fast, firm, strong' beside *bāh-iṣṭha-* 'firmest' Av. *bāzah-* 'strength, greatness', fr. prim. Ar. **bhaǰdha-* (§ 480) i. e. **bhǰh+to-* (*a* = *ǰ*, § 253).

Prim. Ar. *a* + *ǰ* became Skr. *ō*. *vōdhu-m* inf. 'vectum' (from rt. *ueǰh-*) fr. prim. Ar. **vaǰdhu-m* i. e. **ueǰh+tu-m*. *sōdhu-m* inf. 'to master, overpower' (from rt. *seǰh-*) fr. prim. Ar. **saǰdhu-m* i. e. **seǰh+tu-m*. 3. sg. *trǰdḥi* 'he dashes to pieces' (pf. *tatārha*) for regular **trǰdḥi* (fr. **trǰaǰ-dḥi*) arose from analogy to forms in *-nēdhi* fr. **-nazdhi* (§ 476 rem.)

Rem. 1. It has not been ascertained for certain what was the pronunciation of the etymologically presupposable combination *gh+t* at the close of the Indg. prim. period. See § 552.

Rem. 2. Forms like Skr. 2. sg. imper. *didīdḥi* for **dīdīdḥi* (prim. f. **dī-diǰ-dḥi*), to *dīdeṣ-mi* 'I show', were new formations. The *ṣ*-sound (**dīdīdḥi*) was re-introduced in **dīdīdḥi* after the analogy of *dīdiṣṭa dīdeṣṭu* and others (*ṣ* = *kt*, § 399), then this — change of period, change of sound-laws — passed into *ḍ*. Cp. § 591 rem. 1 on *dīdīdḥi* and § 476 rem. 1 on *dādḥi* for *dēhī*.

3. *ǰbh*. Av. (Gāp.) *vīǰbyō* Skr. *vidbhyaś* dat. abl. pl. to Av. *vīs-* Skr. *viś-* 'clan, village community', rt. *ueiǰ-*. Skr. *padbbhiṣ* instr. pl. to *paś-* 'a look', rt. *speǰ-*. We assume that in such cases *ǰ* for *k* goes back to the Indg. prim. period, see § 469, 2. Skr. *ǰbh* probably became *ḍbh* in the same period in which the newly formed **dīdīdḥi* (for **dīdīdḥi*) became *didīdḥi* (rem. 2).

Rem. 3. In Sanskrit the cerebral explosive was carried over to the nom. from the cases with *bh*-suffixes, hence *spāt vīt rāt* instead of the regular **spāk *vik *rāk* fr. **spakṣ* etc., see § 401 rem. 2.

§ 405. Indg. *ǰh*. Prim. Ar. *ǰh* (§ 396) became *h* in Sanskrit through the intermediate stage *jh*, in Iranian it fell together with prim. Ar. *ǰ* in *z* (O.Pers. *d*, see § 402).

Skr. *hāv-ana-* Av. *zav-ana-* 'call, cry', Skr. *hv-atar-* Av. *zb-atar-* 'caller, crier': O.Bulg. *zov-a* 'I call' *zv-atelī* 'caller, crier' + OHG. *gaunōn* 'to complain'. Skr. *bahú-ṣ* Av. *bāzu-ṣ*

'arm': Gr. *πῆχυς* 'fore-arm', OHG. *buog* O.Icel. *bögr* 'bow', Indg. **bhağh-u-s*. Skr. *dēh-ti* 'earth thrown out, rampart' Av. *uz-daez-a* 'accumulation' O.Pers. *dūd-a* 'rampart, fortification': Goth. *deigan* etc., see § 395. Skr. *gúhati* 'hides, conceals' Av. *gaozaiti* 'hides, keeps' O.Pers. *gaudaya* imper. 'hide': Lith. >*gužietojis*< 'protector' *gūsztà* 'brooding nest', rt. in weak grade form *ghūğh-*.

§ 406. In Sanskrit *jh*, the previous stage of *h*, was retained in *ujjhítà* 'forsaken, given up' fr. **ud-jhi-ta-*, to Skr. *ha-* Av. *zā-* 'leave, forsake, lose'.

j appears where prim. Ar. *žh* came under the law of the dissimilation of aspirates (§ 480), e. g. pres. *já-ha-ti* = Av. *za-zā-iti*, prim. Ar. **žha-žha-ti*; pf. *ju-háv-a* 'he called to' from *hu-*. This law of dissimilation consequently came into operation before the time that *jh* became *h*.

§ 407. Prim. Ar. *žhn* became *šn* in Iranian (cp. § 403). Av. *bar's-nu-s* 'height, summit' beside *bar'z-ā-* 'height' *bar'z-išta-* 'very high' Skr. *bárh-iṣṭha-* 'very elevated': O.Ir. *bri* (gen. *breg*) 'rising ground' etc., see § 392.

Prim. Ar. *žhm* became *sm* in Av. (cp. § 403). *maēs-man-* 'urine' beside *gao-maēza-* 'cow-urine' Skr. *mēha-* 'urine': Lat. *mingō* etc., see § 389. *xraoždu-sma-* 'hard, firm ground' beside nom. *zā* acc. *zqm* 'earth': Gr. *χαυ-αί* etc., see § 386; gen. *z'mō* instr. *z'mā* abl. *z'māp* had *z* for *s* after the analogy of *zā zqm*; in O.Pers. with *zm uvāra-zmī-* 'Chorasmiēn'.

Armenian.

§ 408. Indg. *k̄*. *sar* (gen. *saroy*) 'height, summit, slope': Skr. *śtras-* Av. *sarah-* n. 'head' + Gr. *κέφα* 'head', Lat. *cerebru-m* fr. **ceres-ro-* (§ 570). *surb* (gen. *srboy*) 'pure' with *-rb-* from *-br-* (§ 263): Skr. *śubh-rá-s* 'bright, ornamental'. *srun-k̄* pl. 'shin-bones, calves (of the leg)': + Lat. *crūs crūris*. *aseln* (gen. *aslan*) 'needle': Skr. *aś-ri-ś* 'the sharp side of a thing, corner, edge, border', Alb. *ušt* 'ear of corn' fr. **ust*, Lith. *asz-t-rū-s* O.Bulg. *os-t-rū* 'sharp' O.Bulg. *osūtū* *τρίβολος*, genus *spinae* + Gr. *ἄκρο-ς* 'at the end', Lat. *ac-u-s*, O.Cymr. *ocet* 'raster' Goth.

ahs (gen. *ahsis*) 'ear of corn' OHG. *ahil* 'chaff, beard of grain'.
harsn (gen. *harsin*) 'bride' from the root-form *prk-*, see § 390.

The *š* = *k̂* in *šun* (gen. *šan*) 'dog' is unexplained : Skr. *śvan-* *śun-* etc., see § 393.

ç fr. Indg. (*k̂*)*sk̂*. *harç* (gen. *harçi*) 'question' : Skr. *prchā-*, Indg. **prk-sk-*, see §§ 393. 400. 401.

ç fr. Indg. (*s*)*sk̂*. *aic* 'investigation' : OHG. *eisca* 'demand', Indg. **aīs-sk-*, cp. Skr. *ichā-* 'wish, desire' i. e. **is-skā-* beside *ēṣ-a-s* 'a seeking out, wish'.

ç fr. *ks*. *veç* 'six' : Lith. *šeszi* + Gr. *ἑξ* *ēx* Lat. *sex* O.Ir. *se* Cymr. *chwech*, cpf. **syeks* (cp. § 589, 3).

k̂ probably disappeared as *s* before *t̂* in *ut̂* 'eight' : Skr. *aṣṭā* etc., see § 381. Perhaps also before *l* in *lu* 'audible' *lur* 'a hearing, tidings, news', since these words seem to be related to Skr. *śru-* Gr. *κλυ-* etc. (§ 384). See Hübschmann Arm. Stud. I 33.

§ 409. Indg. *g*. *cer* (gen. *ceroy*) 'old man' : Skr. *jāratī* 'rubs, makes fragile' Av. *zaurvā-* f. 'age, a growing old' + Gr. *γέρων* 'old man'. *calr* (gen. *calu*) 'laughter' : + *γελάω* 'I laugh'. *aic* (gen. *aici*) 'goat' : + Gr. *αἶγ-* (gen. *αἶγός*) 'goat'. *arciv* 'eagle' (*ar* fr. *r* § 291, *v* fr. *p* § 330) : Skr. *ṛjipyā-* 'stretching oneself, seizing on the wing' Av. *er'zifya-* 'stretching oneself, falcon'.

§ 410. Indg. *gh*. Initially and after *n*, *r* as *j*. *jaune-m* 'I consecrate, sacrifice' : Skr. *hōtar-* Av. *zaotar-* 'the high priest' + Gr. *χέω* 'I pour'. *jukn* (gen. *jkan*) 'fish' : Pruss. acc. *suckans* (read *zuckans*, § 412) 'fishes' Lith. *žuk-mistra-s* 'master of a fishery' *žuv-l-s* 'fish'. *ji* (gen. *jioy*) 'horse' : Skr. *hāya-s* 'steed'. *anjuk* (*ancuk̂*) 'narrow' : Lat. *angō* etc., see § 389. *inj* (*inc*), gen. *enju* (*encu*), 'panther, leopard' : Skr. *sihā-s* 'lion'. *mi-orj-i* 'μόνορχις' *orj-i* 'not castrated' : Av. *er'zi-* Alb. *herde* for **erde* + Gr. *ὄρχις* 'testicle'. *barjr* (gen. *barju*) 'high' : Skr. *bṛhānt-* etc., see § 392. *barj* (gen. *barji*) 'προςχεράλιον' : Skr. *barhīṣ-n*. 'the offering-litter' Av. *bar'ziš-* 'cover, mat'.

z after vowels. *liz-u-m* 'I lick' : Skr. *lēh-mi* etc., § 392. *ozni* 'hedge-hog' : Lith. *ežys* O.Bulg. *ježŭ* fr. **jez-ǵ* (§ 147 p. 134) + Gr. *ἐχῖνος* OHG. *igil* 'hedge-hog'.

Albanian.

§ 411. According to G. Meyer (Bezenberger's Beitr. VIII 186 f., Alban. Stud. II 15 ff.) Indg. *k̂*, *ĝ*, *gĥ* are represented in Albanian in the following manner:

k̂ = *s*. *si-viēt* 'in this year': Lith. *szi-s* 'this' Lat. *ci-ter* etc., see § 387. *vise* pl. 'places': Skr. *viś-dāmi* Gr. *φοῖνο-ς* etc., see § 381. *ušt* 'ear of corn' fr. **ust*: Skr. *aś-ri-ś* Gr. *ἄκ-ρο-ς* etc., see § 408. G. Meyer conjectures *θ* fr. *s* in *djaθt̃* (*diaθt̃*) 'to the right', the first part of which *djaθ-* represents Indg. **deks-* (Skr. *dākṣiṇa-* etc., see §§ 390. 401).

ĝ = *δ*. *ḍēmp* (with def. article *ḍēmb-i*) 'tooth': Skr. *jāmbha-s* 'bite, tooth', Lith. *žamba* 'mouth', O.Bulg. *zabŭ* 'tooth' + Gr. *γόμφο-ς* 'tooth', OHG. *chamb* 'comb'. *ḍi* 'goat': Skr. *ajā-s* 'buck', Lith. *ožys* 'he-goat' + O.Ir. *ag ullaid* 'cervus' (wild buck). *barθ* (with article *bard-i*) 'white': Skr. *bhrđjatē* Av. *brāzaiti* 'beams, radiates'. *l'iθ* 'I bind' (*l'id-*): + Lat. *ligāre*.

gĥ = *δ*. The Indg. mediae and mediae aspiratae had fallen together in Alban. as in Iran. Kelt. and Balt.-Slav. *ḍies* 'caco': Skr. *hād-a-ti* 'cacat' Av. *zaḍ-ah-* 'nates', Arm. *jet* 'tail' + Gr. *χέζω* 'caco' perf. *ἐχόδα*, *χόδαυο-ς* 'nates'. *viēθ* 'I steal' (*vied-*): Skr. *vāhami* etc. s. § 383. *herḍe* 'testicle': Armen. *mi-orj-i* etc. s. § 410.

d- for *δ-* in *dimēn* 'winter' (Gr. *χειμῶν* etc., s. § 383) and in *diē* 'yesterday' (Skr. *hyás* 'yesterday' + Gr. *χθές* 'yesterday', Lat. *herī hes-ternu-s*, Goth. *gistra-dagis* 'to-morrow').

Baltic-Slavonic.

§ 412. Indg. *k̂*, *ĝ*, *gĥ* were *ś*-(*sh*)-sounds in the Baltic-Slavonic parent language, whose place of articulation cannot be defined more precisely. They retained their character as *ś*-sounds in Lithuanian: *k̂* = *sz*, *ĝ* *gĥ* = *ž*. In Prussian and Lettic as well as in the Slavonic branch they passed into *s*-sounds: *k̂* = *s*, *ĝ* *gĥ* = *z*. In Pruss. the letter *s* denotes both *s* and *z*, in Lett. *s* is the voiceless, and *z* the voiced sound.

The fact that the successor to Indg. *k̂* did not take part in the Slav. change of *s* to *ch* (§ 588), shows that Indg. *k̂* and

Indg. *s* were still distinguished not only in the Baltic parent language but also in the Slavonic.

§ 413. Indg. *k̃*. Lith. *szálta-s* Lett. *sa'lts* Pruss. *salta-* 'cold', Lith. *szalnà* O.Bulg. *slana* 'hoar frost' : Skr. *śi-śira-* Av. *sar'ta-* 'cold, cool'. Lith. *szirsz-ũ* (gen. *szirsz-eñs*) Lett. *sirs-i-s* Pruss. *sirs-ili-s* O.Bulg. *sr̃š-en-ĩ* 'hornet', prim. Balt.-Slav. **širs-en-* : + OHG. *hornaz* from prim. Germ. **hurz-nata-z*, Lat. *crābrō* fr. **crās-rō*, cp. § 303. 306. Lith. *szveñta-s* Lett. *swēts* Pruss. *swints* O.Bulg. *svetũ* 'holy' : Av. *spenta-* 'holy' + Goth. *hunsl* 'offering' fr. prim. Germ. **χyunt-sla-n* (§ 180). Lith. *desziñta-s* Lett. *desmitā-is* Pruss. *dessimts* (*ss* indicates that the *e* is short), O.Bulg. *desetũ* 'decimus' : Skr. *dāśa* etc., see § 387. Lith. *szakà* O.Bulg. *sakũ* 'branch, twig' : Skr. *śākhā-* 'branch, twig' *śānkũ-š* 'plug, bolt'. Lith. *nēszi* Lett. *nest* O.Bulg. *nesti* 'to carry' : Skr. *nāśāni* 'I attain, reach' + Gr. *ποδ-ηρεκής* 'reaching down to the feet'. Lith. *szlauni-s* 'hip, upper part of the thigh', Lett. *slauna* 'hip' Pruss. *slauni-s* 'shaft, bar' : Skr. *śrōṇi-š* 'buttock, hip' + Lat. *clūni-s*, O.Icel. *hlaun* 'buttock'.

§ 414. Indg. *k̃s* = Lith. *sz* Lett. Pruss. *s*, Slav. *s*, cp. § 544. Lith. *aszi-s* Lett. *as-s* Pruss. *assi-s* (*ss* as in *dessimts*, § 413) O.Bulg. *osĩ* 'axle' : Skr. *ākṣa-s* + Gr. *ᾰξων* Lat. *axi-s* OHG. *ahsa* 'axle'. Lith. *s-fut. nēszi* 'I shall carry' prim. f. **nēk-siō* (*neszũ* = O.Bulg. *nesq* 'I carry', § 413), *mĩlszi* 'I shall milk' prim. f. **mĩk-siō* (*mēlzu* = Gr. *ἀμέλγω*, rt. *melg-*, s. § 382), opposed to *lkszi* 'I shall leave' prim. f. **liq-siō* (*lēkũ* = Gr. *λείπω*, rt. *leiq-*, s. § 427 a). O.Bulg. *s-aorist 3. pl. nēsę* 'carried' prim. f. **nēk-s-qt* (to *nesq*), as opposed to *rēsę* fr. **rēche* 'they said' prim. f. **rēq-s-qt* (to *reka*, rt. *req-*, cp. § 462). Indg. *k̃s* accordingly remained apart from *qs* in Baltic-Slav., as in Iran. (§ 401).

Rem. It is not quite clear what the regular treatment of the Indg. group *sē* was in Balt.-Slav.

After the analogy of Iran. (§ 400) we should expect *sz* in Lith. and *s* in Slav. Thus Lith. *szduju* 'I shoot' O.Bulg. *sujaq* 'I send forth, shoot' : OHG. *sciozan* OS. *skeotan* 'to shoot' (prim. Germ. **skeu-t-*, like Goth. *giutan* OHG. *giogan* beside Gr. *χι(τ)-ω*). Correspondingly Osthoff Zur Gesch. d. Perf. 493. 630 (cp. also J. Schmidt Kuhn's Ztschr. XXVII 332) traces the *sz* in Lith. *aũszta* 'it dawns' pret. *aũszo*, *auszrd* 'dawn' (rt. *aũs-*,

cf. p. 562

Lat. *aur-ōr-a* Skr. *uṣ-*) and that in Lith. *gaisztū gaiszaū gaiszi* 'to linger, loiter' (rt. *ghajs-*, Lat. *haer-eō*) back to *(s)sk̥*, according to which one might regard the *sz* in Lith. *maiszyti* and the *s* in O.Bulg. *mēsiti* 'to mingle, mix' (to Skr. *miś-rá-s* 'mixed') as the representatives of Indg. *(k̥)sk̥* (cp. Lat. *misceō* = **mic-sceō*), just as Indg. *sk̥, ssk̥, k̥sk̥* had fallen together in *s* in Iranian.

But on the other hand we have: Russ. *ščiryj* Czech *čirý* Pol. *szczerý* 'pure, clean, upright' = O.Bulg. **štiry-jī* (cp. § 147 p. 134 and Miklosich Vergl. Gramm. I² 288): Goth. *skeirs* 'clear' Ags. *scir* 'pure, bright', Skr. *chāy-ā-* 'shade, glimmer' etc., see §§ 393. 400; Lith. *jėszkóti* O.Bulg. *iskati* 'to seek', Lith. dial. pret. *su-jįszkau* 'I began to seek': OHG. *eiscōn* 'to seek, ask', Skr. *ichāmi* 'I seek' (perf. *iy-ēṣ-a*), Suffix *-sko-*, see § 400.

Moreover we must bear in mind firstly that a **k̥eṣ-jo* might be present in *szāju suja*, as not unfrequently roots, which begin with *s* + tenuis, have old forms without *s-* (§ 589, 3), secondly that *jėszkóti iskati* and **štiryjī* might be Germanic loan-words (cp. § 587 rem. 2). The balance as it seems to me, inclines in favour of *sk̥* = Lith. *sz*, Slav. *s*.

Slav. *sī* = Indg. *k̥ī* became *š*, e. g. *piša* from **pīs-īq*. See § 147 p. 134.

§ 415. Indg. *g*. Lith. *širni-s* Lett. *firni-s* 'pea' Pruss. *syrne* 'corn', O.Bulg. *zrīno* 'corn': Skr. *jir-ṇá-* 'fallen to pieces, pounded' + Lat. *grā-nu-m*, Goth. *kaur̥n* 'corn' (cp. §§ 303. 306), rt. *ger-* 'to grind'. Lith. *žinóti* Lett. *fināt* Pruss. *sinnāt* (nn like *ss* in *dessimts*, § 413) 'to know, recognise', O.Bulg. *znati* 'to know': + Gr. *γινώσκω* etc., s. § 382. Lith. *bėrža-s* Lett. *bērf-s* Pruss. *berse* O.Bulg. *brēza* 'birch': Skr. *bhūrja-s* a kind of birch + O.Icel. *björk* OHG. *pircha* 'birch'. Lith. *ožỹ-s* Lett. *áfi-s* Pruss. *wosee* 'goat': Alban. *ði* etc., s. § 411.

Slav. *zī* = Indg. *g̃ī* became *ž*, e. g. *žuja* fr. **zjū-īq*. See § 147 p. 134.

§ 416. Indg. *gh* fell together with *g* in the prim. Balt.-Slav. period. Lith. *žėmà* Lett. *fīma* Pruss. *semo* O.Bulg. *zima* 'winter': + Gr. *χειμών* etc., s. § 383. Lith. *žāla-s* *žāle-s* Lett. *ja'l-sch* Pruss. acc. *saliga-n* (*g* = *j*) 'green', Lith. *žolė* Lett. *fāle* Pruss. acc. *sāli-n* 'grass, herb', O.Bulg. *zelenū* 'green' *zelije* 'greens, vegetables': Skr. *hāri-ṣ* etc., s. § 389. Lith. *vežù* 'I drive' *važi-s* 'a small sledge' Pruss. *vessi-s* (*ss* as in *dessimts*, § 413) 'a sledging', O.Bulg. *veza* 'I drive': Skr. *vāhāmi* etc., s.

§ 383. Lith. *žióju* O.Bulg. *zījajā* 'I open my mouth wide': + Lat. *hiāre*, OHG. *gīēn* 'to gape'.

Slav. *zī* = Indg. *ghī* became *ž*, e. g. *ližā* from **līz-īq*. See § 147. p. 134.

4. The velar explosives.

§ 417. With regard to the development of *q*, *g*, *gh* the Indg. languages arrange themselves into the same two groups, as they did in the history of the palatals.

In the group, in which *k*, *g*, *gh* appear as explosives, *q*, *g*, *gh* frequently appear as *k*-sounds with following labialisation (*ɣ*), as Lat. *quis* = Indg. **qi-s*, or as sounds, which presuppose this articulation, as Umbr. Osc. *pis* 'quis'. These labialised sounds were originally everywhere, as it seems, simple sounds and in Greek and probably also in Italic had not fallen together with prim. Indg. palatal + *ɣ* (as in **ekɣo-s* 'horse'). But the languages of this group do not all uniformly show this affection in each of the words in question. In numerous cases this affection appeared in one language, but not in another.

In the other group, Ar., Armen., Alban. and Balt.-Slav., the *ɣ*-element is entirely wanting as an old inherited affection.

Here, as in the case of the palatals (§ 380), possibly exists a dialectical difference within the Indg. parent language¹).

In §§ 424 and 466 we shall have occasion to discuss the question of the historical relations between words with and words without labialisation in the *ɣ*-languages, and whether the group which had no *ɣ* was without this accessory element from the very beginning or had lost it in prehistoric times.

1) The maintenance of the existence of two dialects in the bosom of the Indg. prim. language on the basis of the differences of development of the palatal and velar explosives, does not imply that we ought to expect also the same boundary for other dialectical differences which we might feel inclined to ascribe to the Indg. prim. language. The limit, within which one dialectical peculiarity is confined, cannot without any further consideration be taken as typical for others. See Paul's *Prinzipien der Sprachgeschichte* p. 237 f.

The following is the representation of the velar series in the separate Indo-Germanic languages: —

a. Languages with labialisation.

Indg.	Greek	Latin	Irish	Brit.	Germanic
<i>q</i> { with l. without l.	$\pi, \tau (\sigma), \kappa$ κ	<i>qu, c</i> <i>c</i>	<i>c</i> <i>c</i>	<i>p</i> <i>c</i>	<i>xu, u x ʒ, f ð</i> <i>k, x, ʒ g</i>
<i>g</i> { with l. without l.	$\beta, \delta (\zeta), \gamma$ γ	<i>v, gu, g</i> <i>g</i>	<i>b, g</i> <i>g</i>	<i>b, g</i> <i>g</i>	<i>ku, k, p</i> <i>k</i>
<i>gh</i> { with l. without l.	φ, θ, χ χ	<i>f, b, gu, v</i> <i>h, g</i>	<i>b, g</i> <i>g</i>	<i>b, g</i> <i>g</i>	<i>u, ʒ, (b)</i> <i>ʒ g</i>

b. Languages without labialisation.

Indg.	Ar.	Armen.	Alban.	Lith.	Slav.
<i>q</i>	<i>k, c</i>	<i>k(k'), ċ, g</i>	<i>k</i>	<i>k</i>	<i>k, ċ, c</i>
<i>g</i>	<i>g, j</i>	<i>k</i>	<i>g</i>	<i>g</i>	<i>g, dž, dz</i>
<i>gh</i>	<i>gh, jh</i>	<i>g, j ž</i>	<i>g</i>	<i>g</i>	<i>g, dž, dz</i>

Prim. indg. period.

§ 418. a. Tenuis *q* without labialisation in the *u*-languages. Rt. *qert*- 'plait, knit': Gr. *καράλο-ς* 'basket', Lat. *crātes* (§ 306), Goth. *haurds* 'door' OHG. *hurt* 'plait-work, hurdle' + Skr. *cytāmi* 'I tie together' fut. *cartiṣyāmi*, *kāṭa-s* 'hurdle-work, mat' (§ 259), Pruss. *korto* 'hedge, enclosure', rt. *grey-*: Gr. *κρέας* 'flesh', Lat. *cruor*, O.Ir. *crū* 'blood', O.Icel. *hrār* OHG. *rō* 'raw, uncooked' + Skr. *kraviṣ-* 'raw meat', Lith. *kraūja-s* O.Bulg. *krŭv-ŭ* 'blood'. **qarq*... 'crab': Gr. *καρκίνο-ς* Lat. *cancer* gen. *cancrī* fr. **carcro-* (§ 269) + Skr. *karkaṭa-s*.

Forms with *-qt- -qs-* from rt. *jeyg-* 'to harness, yoke': Gr. ζευκτός-ς ζευξις from *ζευκτι-ς (§ 489) ζευκτηρ, εζευξα σύ-ζυξ, Lat. *jūnctus jūnctiō*, *jūnxi con-jux* + Skr. part. *yuktá-s* nom. agentis *yōktár-* 3. sg. pres. *yuvaktē*, 3. sg. fut. *yōkṣyátē* nom. sg. *sa-yuk* from *-*yukṣ* (§ 647, 7), Lith. part. *jūnkta-s* inf. *jūnkti*, fut. *yūnksiu*.

Suffix *-go-* see § 419.

§ 419. b. Tenuis *q* with labialisation in the *u*-languages. Pronominal stem masc. neut. **qo-* **qe-* 'who, which' (interrogative and indefinite), fem. **qā-*: Gr. πόθεν 'whence?' Hom. τέο 'whose?' πῇ πῇ 'in what direction?' (Dor. πᾶ πᾶ), Lat. *quo-d cotti-diē* fr. **quettī*, *qua-m*, O.Ir. *cia* (fr. **cē*) Cymr. *pwŷ* 'who, what?' prim. Kelt. **kuej*, Goth. *hva-s* 'who?' *hvē* 'by what?' fem. *hvō* + Skr. *ká-s* 'who?' Av. dat. *ca-hmāi* 'to whom?', Alban. *kē* 'which', Lith. *kà-s* 'who?' O.Bulg. *kū-to* 'who?'. **qetyer-* 'four': Gr. Ion. τέσσαρες-ες Lat. *quattuor* O.Ir. *cethir* O.Cymr. *petguar* Goth. *fidvōr* + Skr. *catvār-as* Arm. չոր-ք Lith. *keturī* O.Bulg. *četyrije*. Rt. *seq-*: Gr. ἕπ-ο-μαι 'I accompany, follow', Lat. *sequ-or*, O.Ir. *sech-em* 'a following', Goth. *sathv-a* 'I see' (follow with my eyes)? + Skr. *śi-ṣak-ti śác-a-tē* 'conducts, escorts', Lith. *sek-ù* 'I follow'. **perqe* 'five': Gr. πέντε Lat. *quīnque* O.Ir. *cōic* O.Cymr. *pimp* Goth. *fimf* + Skr. *pāñca* Arm. *hing* Lith. *penktī*; **perqto-s* 'the fifth' **perqti-s* 'the number five': Gr. πέμπτο-ς Lat. *quīntu-s* *Quīnctiu-s* Osc. Πομπτιε-ς 'Quinctius' Goth. *fimfta-* (in *fimfta-tathunda* 'the fifteenth') + Skr. *pañctī-ṣ* Alban. *pe-sē* fr. **pe(ṣk)-ti-* (in the Gegic dial. of Alban. *pē-sē* perhaps still has the nasal of the original form in the nasalised *e*) Lith. *peñkta-s* O.Bulg. *peṭū peṭī* from **pektū* **pektī* (§ 545).

The suffix *-go-* occurs, partly with, and partly without labialisation. OHG. *zwī zwīes* beside *zwīg* fr. prim. Germ. **twī-(z)wā-* (§ 444 c): Skr. *dvi-ka-* 'consisting of two, a pair'. O.Icel. *laskr* 'soft, slack, loose' prim. Germ. **laskya-z*, Indg. **lat-go-s*, see § 527. Lat. *tesquo-s* probably from **ters-quo-*, to *torreō* rt. *ters-*, cp. Skr. *śūṣ-ka- śūṣ-ká-* 'dry' from rt. *saṃs-*. O.Ir. *sesc* 'unfruitful' Cymr. *hysp* 'arid' prim. Kelt. **sis-kyo-s*, Lat. *siccu-s*, cpf. **sit-go-s* (§§ 436. 516). Gr. θή-κη 'case, box': Skr. *dhā-ká-s* 'receptacle'. Lat. *musculu-s* (cp. § 431 c), Skr.

muš-ká 'testicle' *mūša-ka-s* *mūši-kā* 'rat, mouse', Armen. *mukn* (gen. *mkan*) 'mouse, muscle', O.Bulg. *myši-ca* 'arm'. Cp. also Skr. *aja-ka- aji-kā* 'kid', Lith. *osz-kà* 'goat'; Armen. *ju-k-n* 'fish', Pruss. acc. pl. *su-cka-ns* 'fishes' (§ 410).

§ 420. a. Media *g* without labialisation in the *u*-languages. Gr. *γέγραυο-ς* Lat. *grū-s* Cymr. *garan* (Gall. *tri-garanus*, s. Curtius Grundz.⁵ 176) Ags. *cran* OHG. *cranuh* + Armen. *krunk* Lith. *gėrvė* O.Bulg. *žeravī* 'crane'. Rt. *gar-*: Gr. *γῆρῶ* 'I speak, utter', Lat. *garriō* 'I chatter', O.Ir. *gair* 'call' Cymr. *gawr* 'clamor', OHG. *cherran* 'to scream, neigh, squeak' + Skr. *gr-nd-mi* 'I call, call to' *gir-* 'an invocation, speech, words'. Rt. *steg- teg-* 'cover': Gr. *στέγω* 'I cover' *στέγος* 'roof', Lat. *tegō*, O.Ir. *tech teg* 'house' O.Bret. *bou-tig* 'stabulum', OHG. *dah* O.Icel. *þak* 'roof' + Skr. *sthágami* 'I cover, hide', Lith. *stóga-s* 'roof'. **jugó-m* 'yoke' (rt. *jeug-*): Gr. *ζυγό-ν* Lat. *jugu-m* Goth. *juk* + Skr. *yugá-m* Lith. *jùnga-s* (with *n* taken over from *jùngiu* 'I yoke'), O.Bulg. *igo* (§ 145).

§ 421. b. Media *g* with labialisation in the *u*-languages. **gīyo-s*: Gr. *βίο-ς* 'life', Lat. *vīvo-s* O.Ir. *biu beo* Cymr. *byw* Goth. *giu-s* + Skr. *jīvā-s* 'alive', Armen. *kea-m* 'I live', Lith. *gýva-s* O.Bulg. *živŭ* 'alive'. Rt. *gem-*: Gr. *βά-σσω βαίvw* 'I go' (§§ 204. 233. 234), Lat. *veniō* (§§ 208. 239). Goth. *gim-an* OHG. *quem-an* 'to come' + Skr. *gá-chāmi* 'I go' (§ 228), Arm. *e-kn* 'he came', Lith. *gem-ù* 'I am born' (§ 249). **regos* n.: Gr. *ἔρεβος* Goth. *rigiz-a-* n. 'darkness' + Skr. *rájas* 'duskiness', Armen. *erek* 'evening'. Root-form *a-ræg-* 'smear, anoint, smooth': Gr. *ἀβρό-ς* 'delicate, luxurious', Lat. *unguō*, O.Ir. *imb imm* (gen. *imme*, st. *imben-*) 'butter', OHG. *ancho* 'butter' (Goth. **agqa*) + Skr. *añji-ṣ* 'salve, ornament, splendour' 2. pl. *anekthá* 'ye anoint'.

Indg. suffixes with *g* cannot be established with certainty.

§ 422. a. Media asp. *gh* without labialisation in the *u*-languages. Lat. *hosti-s* 'foreigner, enemy', Goth. *gasts* OHG. *gast* 'stranger, guest' + O.Bulg. *gostŭ* 'guest, companion, friend', cpf. **ghos-ti-s* 'stranger'. Rt. *steigh-*: Gr. *σείγω* O.Ir. *tiagaim* 'I stride, go', Goth. *steiga* 'I mount' + Skr. *stigh-nu-tē*

'leaps up, ascends' (not found), Alban. *štek* (definite form *šteg-u*) 'entrance' Lith. *staigýti-s* 'to make haste' Lett. *staigāt* 'to go, travel' O.Bulg. *stignā* 'I come'.

§ 423. b. Media asp. *gh* with labialisation in the *u*-languages. Rt. *gher-* : Gr. *θερμός*-s Lat. *formu-s* OHG. *warm* 'warm' from prim. Germ. **(ǝ)urma-z* + Skr. *gharmá-s* 'glowing fire', Armen. *ǰerm* 'warm' Pruss. *gorme* 'heat', Indg. **ghor-mo-* (Gr. Armen. with *e* in the root syllable). Rt. *sneigh-* 'to snow' : Gr. *νίψ-α* acc. 'snow', Lat. *ninguit*, acc. *niv-em*, Goth. *snáivs* 'snow' + Av. *snaēžaiti* 'it snows', Lith. *snėga-s* O.Bulg. *sněgŭ* 'snow'. Gr. *νεφρός*-s 'kidney, testicle', Praenest. *nefrōn-es* Lanuv. *nebrundin-es* 'kidneys, testicles', OHG. *nioro* 'kidney, testicle' O.Icel. *nýra* 'kidney' fr. prim. Germ. **ne(ǝ)ur-en-*. Rt. *kneigh-* : Lat. *cō-nīveō* (perf. *cō-nīxī*), Goth. *hneivan* OHG. *(h)nīgan* 'to bow'.

Indg. suffixes with *gh* cannot be established with certainty.

a. The language-group with labialisation.

§ 424. Many kindred words, which are found in all or several *u*-languages, appear in one language with labialisation, in another without it or in the same language show labialisation in one set of forms, but not in the others.

Manifold difficulties stand in the way of our being able to form a judgment of their history, especially in as much as we do not know how old the labial affection of the velar explosives is, or whether in the group of *u*-languages it belonged from the beginning to all forms of a form-system irrespective of the quality of the neighbouring sounds, or was connected with some definite vicinity of sounds, and whether, later, but still in prehistoric times, a new *u*-afterclap, caused by fresh sound-laws, did not here and there make its appearance quite independent of the first *u*-development.

The chief question is, to what extent can the disappearance of the old inherited *u*-affection be established or made probable within the circle of the *u*-languages? It is seldom that its

disappearance is to any extent carried out before our eyes, as in Lat. *secuntur* from *sequuntur*. We may conclude that it was probably dropped in the following cases:

1. When other forms of the same kindred class of words have *ʁ* and the sound-laws of the respective languages permit our assuming that the labialisation has been lost. We thus assume in regard to Goth. *qiman* OHG. *queman* 'to come' (§ 421) and prim. Germ. **sum-da-* fr. **sʁum-da-* etc. (§ 180 p. 158) that prim. Germ. **kumana-z* 'come' pp. (OHG. *koman*) arose from **kʁum-ana-z* (§ 444b).

2. When closely related dialects (of the same language-branch) have *ʁ* and the native sound-laws are not in the way. Thus the *-pt-* in Osc. *Πομπτιε;* 'Quinctius' shows that the *-ct-* in Lat. *quīn(c)tu-s* goes back to prim. Italic *-kʁt-*. O.Cymr. *petguar* 'four' permits our assuming an older *kʁ-* for Ir. *cethir*.

3. When other languages have *ʁ* and the native sound-laws are not in the way. We thus conjecture prim. Germ. **kʁuru-* for Goth. *kaúru-s* 'heavy' and prim. Lat. (or prim. Ital.) **gʁaʁi-s* for Lat. *gravi-s* (§ 432d) on account of Gr. βαρύς, Indg. **grr-u-* **gr-u-*.

Several proofs may often be united together. Thus we may appeal 1. to *quīnque*, 2. to Osc. *Πομπτιε;*, 3. to πέμπτος and Goth. *fimfta-* for Lat. *quīn(c)tu-s* from **kʁenkʁto-s*.

Opposed to these cases there are many in which, by virtue of other forms of the same dialect or of the connected forms of a closely related dialect or of those of another *u*-language, one is inclined to maintain the loss of *ʁ*, but is prevented from doing so by the sound-laws hitherto discovered. Thus Ion. κόθεν κῶς etc. beside Att. etc. πόθεν Lat. *quo-d* Goth. *hva-s* as opposed to Ionic ποιή fr. Indg. **qoi-na* (§ 427a); Gr. λακείν 'to scream, speak' beside Lat. *loquī* as opposed to Gr. λιπεῖν ἐπεσθαι etc. with *π* = Indg. *q*; Lat. gen. *vōc-is* *vocāre* beside Gr. ὄψ 'voice' ἔπος 'word', as opposed to Lat. *coquis* etc. with *qu* = Indg. *q*. With our present state of knowledge we can, in such cases, only make uncertain conjectures, as e. g. that in forms connected with

Lat. *voc-* the *c* for *qu* had been extended by analogy from the nom. *vōx*, which can be regularly traced back to **uōk**s (§ 431 c).

For words and groups of words, which do not appear in any language with labialised velar-sound, it must for the present be left undecided, as to whether they ever had the *u*-afterclap. In each language we give first the examples for this form-category apart from the other.

Greek.

1. Indg. *q*, *g*, *gh* without labialisation.

§ 425. Indg. *q*. καρπ-ό-ς 'fruit' κρῶπ-ιο-ν 'sickle': Lat. *carpō*, OH*i*. *herbist* 'autumn' + Skr. *kṛpāṇa-s* 'sword', Lith. *kerpū* 'I shear'. κολλων-ός-ς 'hill': Lat. *ex-cellō colli-s*, Goth. *hallu-s* 'rock' O.Icel. *hallr* 'hill, declivity' OS. *holm* 'hill' + Lith. *kėl-ti* 'to raise' *kāl-n-a-s* 'a local elevation, mountain'. κλη'-ς 'key': Lat. *clavi-s clavo-s*, O.Ir. *clōi* Mid. Cymr. *cloeu* pl. 'nails', OHG. *sliozan* 'to shut' (prim. Germ. **sleut-* from **skleut-*, § 528 rem. 1) + O.Bulg. *klju-čŭ* 'hook, key', cp. § 589, 3. ἀγκών 'bow' ὄγκος 'bow, hook, circuit': Lat. *ancu-s uncu-s*, O.Ir. *ēcath* 'hamus', Goth. *hals-agga* 'neck' OHG. *angul* 'angle' + Skr. *anākā-s* 'hook'.

Indg. *g*. ἀγείρω 'I collect' ἀγορά 'assembly' γάρ-γαρα 'heap': Lat. *gre-x gre-g-is*, O.Ir. *graiḡ* 'herd of horses' (the Lat. and the Kelt. word with 'refracted reduplication') + Skr. *grāma-s* 'crowd, army, village'. ἐρέωμαι 'I spit out': ē-rūgō, OHG. *itaruchian* 'to chew again' + Lith. *rūgiu* 'I belch' O.Bulg. *rygajq se* 'I belch, vomit'.

Indg. *gh*. χανδάνω 'I lay hold of' fut. χείσομαι fr. **χενρσομαι*: Lat. *pre-hendō praeda* from **prae-heda*, Goth. *bi-gitan* 'find, get' O.Icel. *geta* 'to get, divine, guess' + Alban. *ḡndem* 'I am found', Pruss. *sen-gydi* 'he may receive, attain' O.Bulg. *gadajaq* 'I guess, divine', rt. *ghed*-¹⁾. λέχος 'bed': O.Ir. *lige* 'bed', Goth. *ligan* 'to lie' + O.Bulg. *lēga* 'I lie down' *lože* 'place of rest'.

1) The nasalisation of this root in the present **ghendō* is explained in the same manner as the Skr. present formation *limpāmi* etc. (p. 189).

*κ χκ, γκ = *gi ghī, gī* became σσ ττ, ζ(σδ) δδ, as in the case of the corresponding palatal sounds + *i*, see §§ 384—386. 489. 493. 497. ὀρύσσω 'I dig' fr. *ὀρυκ-κω : Lat. *runcāre* + Skr. *luñcāmi* 'I pull out, pluck'. φύζα 'fright' fr. *φρυγ-κα, to φεύγω 'I flee' : Lat. *fugīō*, Goth. *biugan* 'to bend' + Skr. *bhugná-s* 'bent', Lith. *baugù-s* 'fearful', rt. *bheug-* *bheug-*.

2. Indg. *q, g, gh* = prim. Gr. *k**, *g**, *kh**.

§ 426. The prim. Greek sounds partly became developed to π, β, φ, partly to τ σ, δ ζ, θ, and partly to κ, γ, χ. The conditions, under which these differences of the place of articulation were formed, were mostly the same for the three forms of articulation.

That the *μ* following the explosive sound in prim. Greek was not a full *μ*, can be concluded from the contrast between ἵππος 'horse' (fr. Indg. **ekho-s*, § 166 p. 147) and ε. g. ἔλιπον 'I left' (fr. Indg. **e-liq-o-m*). Cp. p. 305 f.

§ 427. Prim. Greek *k** became

a) π before o-vowels, before sonant and consonant nasals and liquids, and before *t, th, s*. Stem πο- 'who' : Lat. *quo-*, Skr. *ka-* etc., see § 419. ποινή 'expiation, atonement, fine' : Av. *kaēna* 'fine', O.Bulg. *cēna* 'price', Indg. **qoi-nā* from rt. *qei-*, to which also Gr. τί-σις 'atonement' : Skr. *āpa-ci-ti-* 'requital' (under *b*). λείπω 'I leave' : Lat. *linguō*, O.Ir. *lēcim* 'I leave', Goth. *leihva* 'I lend' + Skr. *riṇák-ti* 'leaves', Arm. aor. *e-liḵ* 'he left', Lith. *lėkù* 'I leave', rt. *leiq-*. ἥπα-τ- 'liver', orig. form **ḡeqy-t-* : Lat. gen. sg. *jecin-or-is* (§ 431 c) + Skr. gen. sg. *yakn-ās*, Lith. nom. pl. *jekn-os*. πεμπάς 'the number five' = Skr. *pañcāt* (§ 448 rem.), cfp. **perəqyt-s*; Gr. α Skr. *a* in the last syllable instead of the expected *av an* (s. §§ 230. 235) are explained by the original accentuation of the weak cases, gen. sg. **perəqyt-ós* etc.; concerning the δ of the stem πενταδ- see footnote 1 pp. 199—200. ὄμμα 'eye' fr. prim. Gr. *ὄπ-μα (§ 488) : Lith. *akì-s* O.Bulg. *oko* 'eye'. In like manner also πέμμα 'any kind of dressed food' : Lat. *coquo* + Skr. *pácāmi* O.Bulg. *peka* 'I cook'. ἐ-πρι-άμην 'I bought' : O.Ir. *cre-nim* 'I buy' *crīthid* 'desirous of buying' O.Corn. *prinid* 'emptus' + Skr.

krti-ḡā-mi 'I buy, purchase'. ἔ-πλ-ε-το 'versatus est' (περι-πλ-ό-μενο-ς) πόλο-ς 'the axis on which something turns, land turned up with the plough': Lat. *colō* fr. **quelō* (§ 431 a), *in-quilīnu-s* + Skr. *cārāmi* 'I move myself, wander', rt. *gel-*. πέμπτο-ς 'the fifth': + Lith. *peñkta-s* etc., see § 419. πεπτό-ς 'cooked': Lat. *coctu-s* from **quecto-s* + Skr. *paktā-s*; fut. πέψω aor. έπεψα: Lat. *coxi* from **quexi* + Skr. fut. *pakṣyā-ti* aor. Ved. *pákṣa-t*. νίπ-τρο-ν 'water for washing' fut. νίψω 'I shall wash' nom. sg. χέρ-νιψ 'water for the hands' + Skr. *niktā-s* 'washed off' fut. *nēkṣyā-ti* 'he will wash off', rt. *neig-* (acc. χέρ-νιβ-α, Skr. *ava-nēj-ana-m* 'washing-water').

πτ became ττ in Cret. πέντο-ς from **πενττο-ς* = πέμπτο-ς 'quintus'. Cp. § 333.

b) τ before *e-* and (sonantal) *i-*vowels. τὲ 'and': Lat. *-que*, O.Ir. *-ch* Cymr. *-p* + Skr. *ca*, Indg. **qe*, related to πό-θεν etc. Hom. τέο 'whose', Cret. (Gortyn) fem. ό-τεία, as opposed to Att. ό-ποία 'qualis' from the stem **qe-* (§ 419). τέλλειν 'to rise' to πόλο-ς, rt. *gel-* see above under *a*. πέντε 'five': Lat. *quīnque* etc., see § 419. τί 'what?': Lat. *quid* + Skr. *-cid* Av. *-ciḥ* (indef.), Indg. **qi-d*. τί-σι-ς 'atonement', rt. *qeḡ-*, see above under *a*.

That this τ arose from prim. Gr. *k**, not *k* (as § 425), and that no direct historical connexion existed between the palatal articulation which is to be postulated as the previous stage for τ and the Aryan palatal *c* = Indg. *q* (§ 445) (as is maintained by some scholars e. g. J. Schmidt), follows from the fact, that τ only occurs in such kindred classes of words as have π = prim. Gr. *k** beside τ (τέο beside πό-θεν) and, so far as they are at the same time represented in other *u*-languages, have a labialised sound opposite to the Gr. τ (τίς = Lat. *quis*). If τ had had no *u* from the most ancient times, this sound would also have to appear as representative of Indg. *q* in the words belonging to § 418, as e. g. κέλης 'runner' (Lat. *celer*, Skr. *cal-*, rt. *gel-*), where however it does not occur. The following palatal vowel, notwithstanding the *u*-afterclap, caused palatalisation of the *k*-sound (*k** from *k**), just as in the change of prim. Slav.

**kʷisti* to O.Bulg. *cvisti* ('to blossom') *ʷ* did not prevent the *i* from exercising its influence on the *k* (§ 462).

Thess. *κίς* probably stands to Att. *τίς* in the same relation as Mod.HG. *quängen* to MHG. *turengen* (§ 374), that is, before the disappearance of the *ʷ* of the prim. Gr. form **kʷis* this caused the change of the explosive sound back again to *k*. Also Cypr. *σίς* = *τίς* (cp. Arcad. *ζέλλω*, § 428 *b*.) supports the assumption that *kʷ* = Indg. *q* before palatal vowels and Indg. *t* had not yet fallen together in prim. Greek.

Rem. 1. Through new formations *π* and *τ* came to stand in sound-combinations, in which they had not regularly arisen. E. g. Dor. loc. *πεῖ* 'where?' instead of **τεῖ*, Ion. Att. *λείπει* *λείπει* instead of **λειπει*; etc., conversely *ἀνα-τολή* 'rising' instead of **-πολη* (to *ἀνα-τέλλω*, Skr. *car-*). Cp. §§ 428 rem. 429 rem. 1 and 448 rem.

c) *κ*, when *υ* preceded or followed; in some cases this *υ* seems first to have been called into existence by the *ʷ* in *kʷ*, a point, which still requires closer investigation. *λύκο-ς* 'wolf': Goth. *vulfs* + Skr. *vṛka-s* 'wolf'. Gen. *νυκτός* 'noctis'? : + Skr. *nákti-ś* Lith. *naktī-s* 'night'. Nom. sg. *ἀνό-φλυξ* 'drunk with wine' (gen. *-φλυγ-ος*) *φλυκτί-ς* 'bladder' beside *φλέψ φλεβ-ός* 'blood-vessel'. *κύκλο-ς* 'circle': Ags. *hweól hweowol* 'wheel' + Skr. *cakrá-s* 'circle, wheel'. Cp. §§ 428 *c*. 429 *c*.

Rem. 2. Also *xx* in *ὄκκο-ν* acc. 'eye' in Hesych. (cp. *ὀπ-* in *ὀπή* 'a peephole, hole' etc.) for *kʷ+ʷ*? Cp. *πελεκκαίω* § 166 withr rem. Doubts remain on account of Bæot. *ὀκταλλο-ς* 'eye', whose *κτ* must be taken into consideration in connexion with the *φθ* in *ὀφθαλμός-ς* and the *kʷ* in Skr. *akṣan-*.

d) With following *ι*, there arose *σσ*, *ττ*. Hence prim. Gr. *kʷi* thus fell together with *kῑ* = Indg. *kῑ* (§ 384). Since Indg. *qi* and Indg. *tῑ* remained apart in Greek, we may assume that *kʷi* did not first become *tῑ* — as one might expect according to *τίς* from **kʷi-s* —, but that the 'zetacistic' influence of the *ι* already began, when the explosive sound belonged to the sphere of the back articulation. *πέσσω πέττω* 'I cook' beside fut. *πέψω* etc., rt. *peg-*. Further under § 489.

§ 428. Prim. Greek *gʷ* became

a) *β* before *o*-vowels and sonant and consonant nasals and

liquids. *βοῦ-ς* 'ox': Umbr. *bue* 'bove', O.Ir. *bō* OHG. *chuo* 'cow' + Skr. *gāu-ś* 'ox', Armen. *kov* (gen. *kovu*) 'cow' O.Bulg. *gov-ędo* 'ox'. *βολή* 'a throw, cast': OHG. *quellan* 'to spring' (of water) + Skr. *gālati* 'trickles down', rt. *gel-*. *βορᾶ* 'food': Lat. *-voru-s vorāre* + Skr. *girdāmi gildāmi* 'I swallow up', Armen. *ker* (gen. *keroy*) 'nourishment, food', Lith. *geriū* 'I drink' O.Bulg. *ѣрѣ* 'I swallow', rt. *ger-*. *σίβ-ομαι* 'I feel awe, respect' (orig. 'start back before something'): Skr. *tyāj-a-ti* 'forsakes, forgoes' part. *tyakti-*, rt. *tjeg-*. *ἐρεβος* n. 'darkness': Goth. *riqiz-a-* etc., see § 421. *βά-σκω βα-τό-ς βα-σι-ς* = Skr. *gā-chāmi ga-tā-s gā-ti-ś*, *βαίνω* = Lat. *veniō*, from rt. form *gñ-* 'go', see § 421. *μνάομαι* 'I woo to wife' from **μν-ā-* from **βν-ā-* 'wife' (this denominativum was treated as a primitive verb, hence the *σ* in *μνηστό-ς*): O.Ir. *mna* gen. sg. 'of a wife' out of **bnās* (§ 520) + Skr. *gnā-* 'the wife of a god', Indg. **gn-a-*; beside these Bæot. *βανᾶ* O.Icel. *kona* 'woman' + Armen. pl. *kanai-k* 'women', Indg. **gñn-a-*. *σεμνό-ς* fr. **σεβνο-ς*, part. to *σίβ-ο-μαι*, see above. *ἀμνό-ς* 'lamb' fr. **άβ-νο-ς*: Lat *avilla agnu-s*, O.Ir. *uan* 'lamb' + O.Bulg. *jagne* 'lamb'. *βαρύ-ς* 'heavy': Goth. *kaúru-s* + Skr. *gurú-ś* 'heavy', Indg. **grr-u-s*. *βι-βρώ-σκω* 'I devour' *βρω-τήρ* 'devourer': + Skr. *gīr-nā-* 'swallowed up', Indg. rt. form *gř-*, see § 306 p. 242. *βρόχω* 'I gnash' *βρόκω* 'I bite' (cp. Osthoff zur Gesch. d. Perf. 313 f.): + Lith. *gráužiu* 'I gnaw, bite off' O.Bulg. *gryza* 'I bite', rt. *gra-ugħ-*. *άβ-ρό-ς* 'pretty' from orig. form **ęg-ro-s*: Lat. *unguō* etc., see § 421. *βάλλω* 'I throw' from orig. form **gl-īō*, aor. *βαλ-εῖν βαλ-ῆναι* fr. **gl-*, aor. *βλ-ῆναι* fr. **gl-*, beside *βολ-ή*, rt. *gel-*, see above. Aeolic *βλῆρ* beside Att. *δέλεαρ* (*b*) 'bait' either to *βάλλω* (the author Morph. Unt. II 225) or to OHG. *querdar* 'bait' (J. Schmidt Kuhn's Ztschr. XXV 153).

β before *i* is remarkable. *βί-ος* 'life': Lat. *vīvo-s* etc., see § 421. *βιό-ς* 'bow': + Skr. *jyā-* Av. *jyā-* 'bow-string', Lith. *gijà* *gijè* 'thread' (cp. § 120 p. 111 f.). *βία* 'force' *βι-νέω* 'I ravish': + Skr. *jyā-* 'supreme power' *ji-nā-mi* 'I overpower, subdue' *jáy-ami* 'I overcome' perf. *ji-gāy-a*. Cp. J. Schmidt Kuhn's Ztschr. XXV 159. 161, the author Morph. Unt. IV 410 f.

b) *δ* before *e*-vowels. Arcad. *δέλλω*, Delph. Gortyn *όδελό-ς*,

to *βολ-ή* *ὀβολ-ό-ς* *βάλλω*, rt. *gel-*, see *a*. Arcad. *δέρεθρο-ν* beside Att. *βαῖραθρο-ν* 'gulf, cleft', to *βορ-ά* *βι-βρώ-σκω*, rt. *ger-*, see *a*. Locr. Delph. *δέιλεται* Dor. *δήλεται* 'wills, wishes' from orig. form **gél-ne-tai*, beside Lesb. *βόλλεται* Att. *βούλεται* 'wills, wishes' fr. orig. form **gǵ-né-tai* (§ 204 p. 170 f. § 306 p. 243), rt. *gel*⁻¹).

In Arcad. this *δ* must have been different from the *δ* = Indg. *d*. For it was also represented by *ζ*: *ζέλλω*, *ζέρεθρον*, cp. Cyp. *σίς* = *τίς* § 427 *b*. Hence Indg. *ge-* and *de-* had not yet fallen together in prim. Greek.

Rem. Through new formations, *β* and *δ* came to stand in sound-combinations, in which they would not have regularly arisen. E. g. *βέλος* 'shot' instead of **δέλος* to *βάλλω*; *ὀβελό-ς* beside *ὀδελό-ς* and *ὀβολό-ς*; *δολφός-ή μήτρα* Hesych., beside *δελφύ-ς* *ἄ-δελφός-ς* *δελφίς*: Skr. *gárbha-s* 'womb'. Cp. § 427 rem. 1, § 429 rem. 1 and § 451 rem.

Does Bæot. *βέλλεται* Thess. *βίλλεται* beside Locr. *δελλεται* Lesb. *βόλλεται* also belong here? The idea is not entirely to be rejected, since prim. Gr. *g** may regularly have become *β* before *e* in Aeol. Cp. *β* before *i* in *βίος* etc.

c) *γ* in the vicinity of *υ*, corresponding to the *x* in § 427 *c* and to the *χ* in § 429 *c*. Gen. *οινό-φλυγ-os*, see § 427 *c*. *ἐγ-γνή* 'consent, surety, betrothal': Lat. *uoneō* from **gμou-eō*, rt. *geu-*. *γογ-γύ-ζω* 'grumble, am unwilling' beside *βοή* 'call' from **βοF-α*: Skr. *jō-guv-ē* 'I proclaim aloud'; the *γ* in *γόο-ς* 'plaint' was transferred from *γυ-*. *γυνή* beside Bæot. *βανά* and Hom. *μνάο-μαι* see *a*.

The side by side existence of *πρέσβυ-ς* and *πρέσγυ-ς* is probably due to a double stem form *πρεσ-γυ-* and *πρεσ-βεF-* (to Lith. *žmo-gù-s* 'man'?). It is not clear whether *-βε-* was regular after *σ* (cp. *σβ-έννυμι σβ-ῆναι* to Lat. *sēgni-s*, rt. *seg-*, § 432 *d*, beside *ζείναμεν* *σβέννυμεν* in Hesych), or whether *β* was borrowed from *πρέσ-βιστο-ς* *πρέσβι-ς* *πρέσβος* etc. It must be observed that *g** before *υ* lost its labialisation earlier than *g** which led to *β* and *δ*. The last two sounds stood for a time in a closer relation to each other as compared with *gu*. Association

1) Concerning this root cp. the author in de Saussure's *Mém. sur le syst. pr.* 256, Fick Bezenberger's *Beitr.* VI 211 f., Blass *Rhein. Mus.* XXXVI 610.

with the form of the superlative etc. would have taken place at that period.

d) With following *j*, there arose ζ (σδ), δδ. Prim. Gr. *g^{*}j* thus fell together with *gj* = Indg. *g_j* (§ 385). *g^{*}j* did not first become *d_j*, any more than *k^{*}j* first became *t_j* (427 d) ¹). ζῆν 'lives' fr. *ζῆ-(λ)ει, fut. ζή-σομαι : + Av. *jyāiti-jyātu-* 'life'. νίζω 'I wash off' beside νίπτω-ν etc., see § 427 a. For the rest see § 493.

§ 429. Prim. Greek *kh^{*}* became

a) φ before o-vowels and sonant and consonant nasals and liquids. φόν-ος 'murder' part. φα-τό-ς perf. πέ-φα-ται pret. ἔ-πε-φν-ο-ν : + Skr. *hán-ti* 'strikes, slays' 3. pl. *ghn-ánti*, Armen. *gan* 'blows', O.Bulg. *žn-jā* 'I cut down, reap', rt. *ghen-*. ἡλφ-ο-ν 'I acquired' pres. ἀλφ-άνω from *φnδ : + Skr. *árhāmi* 'I earn, deserve' *arghá-s* 'worth, price', Lith. *atgà* 'pay, reward', rt. *algh-*. στέρφος τίρφος n. 'leather, hide', esp. 'the hard hide on the back of animals' : Lat. *tergus* 'thick hide' esp. 'the hide on the back of animals', then 'back'. νεφρός 'kidney' : OHG. *nioro* etc., see § 423. ἐλαφρός 'quick, dextrous, nimble' : OHG. *lungar*, cpf. *lōgh-rós; to ἐλαχύ-ς, see c.

b) θ before e-vowels. θείνω pres. to ἔπεφνον etc., see a. θερμός 'warm' = Armen. *ferm* 'warm', θέρος 'summer' = Skr. *hāras* 'glowing heat', rt. *gher-*, see § 423. θέσσωσθαι 'to obtain by entreaties' fr. *θετ-σ- : Av. *jaidyēmi*, O.Pers. *jadīyāmīy* 'I beg, ask', rt. *ghedh-*; to which probably also πόθο-ς 'desire, a longing for', from *φοθο-ς (§ 496), according to a. θήρ 'animal' : Lat. *feru-s* + O.Bulg. (d)zvěř 'wild beast' from prim. Slav. *g_uěř (§ 464); it remains uncertain whether the *u* of the Slav. form was an old inherited *u* (J. Schmidt Kuhn's Ztschr. XXV 178).

Rem. 1. Through new formations φ and θ came to stand in sound-combinations, in which they would not have regularly arisen. E. g. νίφ-ει 'it snows' after νίφω- (in νιρόμενος and others) νίφ-α etc., rt. *sneigh-*, see § 423. ἡλφ-ε after ἡλφ-ον etc. Ε-θαν-ε 'he died', 3. pl. perf. τε-θν-ᾶν (for *τε-φν-αντι) after θείνω (s. above), see Osthoff Zur Gesch. d. Perf. 366 f. Cp § 427 rem. 1. § 428 rem. and 454 rem.

1) Hence we have also no right to maintain, that ζῆν proves, that βίος stands for regular *διος.

$\varphi = \theta$ in Aeol. $\varphi\eta\rho$ (Thess. $\Phi\lambda\acute{o}\text{-}\varphi\epsilon\iota\rho\text{-}\varsigma$) seems to be due to a change of p to f , cp. §§ 365. 495.

Rem. 2. If $\beta\epsilon$ = Indg. ge should have arisen regularly in Aeol. (§ 428 b. rem.), we might similarly trace $\varphi\eta\rho$ directly back to $*kh^*er$.

c) χ corresponding to the x in § 427 c and to the γ in § 428 c. $\delta\nu\chi$ - 'nail, claw' in the gen. $\delta\nu\chi\text{-}\varsigma$ etc. : Lat. *ungui-s*; it is here of course a question of prim. Gr. $kh^* =$ Indg. qh (§ 553). $\epsilon\lambda\alpha\chi\acute{\upsilon}\text{-}\varsigma$ 'small, little' = Skr. *raghú*- \acute{s} *laghú*- \acute{s} 'quick, small' beside $\epsilon\lambda\alpha\varphi\rho\acute{o}\text{-}\varsigma$ 'quick' see a; the θ in $\epsilon\lambda\alpha\theta\rho\acute{o}\text{-}\varsigma$ (Hesych.) was perhaps transferred from the once existing forms $*\epsilon\lambda\alpha\theta\epsilon f$ - (beside $\epsilon\lambda\alpha\chi\nu$ -) and $*\epsilon\lambda\mu\theta\iota\sigma\tau\text{-}\varsigma$.

d) with following i , there arose $\sigma\sigma$, $\tau\tau$. $\epsilon\lambda\acute{\alpha}\sigma\sigma\omega\nu$ $\epsilon\lambda\acute{\alpha}\tau\tau\omega\nu$ 'smaller, less' compar. to $\epsilon\lambda\alpha\chi\acute{\upsilon}\text{-}\varsigma$ (c). Cp. §§ 427 d. 428 d. 497.

Italic.

1. Indg. q , g , gh without labialisation.

§ 430. Indg. q . Lat. *capiō*, *capis -idis*, Umbr. *kapiř-e* 'capide', Osc. *καπιδιτωμ*, i. e. *kapid-i-to-m* 'ollarium': Gr. *κάπη* 'manger' *κώπη* 'handle', O.Ir. *cacht* O.Corn. *caid* 'servus', Goth. *hafja* 'I raise' OHG. *haft* 'caught' + Armen. *kap* 'bond, fetter'? (Hübschmann Armen. St. I 12), Alban. *kap* 'I seize', Lett. *kampu* 'I seize, take hold of'. Lat. *canō*, Umbr. *kanetu* 'canito': Gr. *κανάζω* 'I tune, sound', O.Ir. *canaim* 'I sing' O.Corn. *cheniat* 'cantor', Goth. *hana* 'cock' + Skr. *kan̥-kan-i* 'an ornament with bells', Lith. *kañ-klai* and *kan-klės* pl. 'harp, guitar' (or is the Lith. word to be connected with *kinkýti* 'to stretch'?). Lat. *coxa*: O.Ir. *coss* 'foot' Cymr. *coes* 'femur', OHG. *hahsa* 'knuckle of the hind leg' + Skr. *kákṣa-s* 'arm-pit' Av. *kaša-* m. 'shoulder'. Lat. *cūpa*: Gr. *κύπη* 'a hole, hollow' *κύπελλο-ν* 'capacious drinking vessel, goblet' + Skr. *kūpa-s* 'ditch, hole'. Lat. *secō*, Umbr. *pru-sekatu -sektu* 'prosecato' *pro-sešetir* 'prosectis': OHG. *sega saga* O.Icel. *sqg* 'a saw' O.Icel. *sigðr* 'sickle' + O.Bulg. *sékq* 'I hew' *séknaq* 'I cut'. Lat. *auctu-s auctiō auctor*, Umbr. *uhtur* 'auctor': + Pruss. *auckta-* Lith. *áukszta-s* 'high' Lith. *áukti* 'to grow', rt. *aug-*, s. below under Indg. g . Lat. *scandō*:

Gr. σκάνδαλο-ν 'stumbling-block', O.Ir. *ro se-scaind* perf. 'he leapt' + Skr. *skándāmi* 'I hasten, leap'.

Concerning Umbr. *s* from *k* before *e*- and *i*-vowels see §§ 387. 502.

Indg. *g*. Lat. *gelu*, Osc. *γελαν* 'pruinam': Goth. *kalds* 'cold' O.Icel. *kala* 'to freeze' + O.Bulg. *žlědica* 'sleet'. Lat. *augeō augmentu-m* (cf. *auctor* Umbr. *uhtur* under Indg. *q*) : O.Ir. *ōg* 'uninjured, whole', Goth. *áukan* 'to increase' + Skr. *ōjas-* Av. *aojah-* n. 'power, might', Lith. *áugu* 'I grow'. Lat. *tegō* (cp. *tēctu-s*, Umbr. *tehteři-m* 'tegimentum' with *qt*) : Gr. *τέγος* etc., see § 420.

Indg. *gh*. Lat. *hosti-s*: Goth. *gasts* etc., see § 422. *prehendō* : Gr. *χανδάνω* etc., see § 425. *gradior*: O.Ir. *in-grennim* 'I pursue', Goth. *grīps* (st. *gridi-*) f. 'step, stride' + O.Bulg. *grědaq* 'I come'. Cp. also *congiu-s* : Gr. *κόγχο-ς* + Skr. *śaṅkhá-s* 'muscle' with Indg. *qh*, § 553.

foſtis beside *hostis* like *folus* beside *holus*. See § 389.

2. Indg. *q*, *g*, *gh* = prim. Ital. *k*^{*}, *g*^{*}, *χ*^{*}.

§ 431. Prim. Ital. *k*^{*} became

a) Lat. *qu* before all vowel qualities except *u*'), corresponding to *p* in Umbr.-Samn. Lat. *qui-s*, Umbr. Osc. *pī-s* 'quis' : Gr. *τίς* etc., see § 427 *b*. Lat. *-que*, Umbr. *-pe* Osc. *-p* : Gr. *τὲ* etc., see § 427 *b*. Umbr. *petur-* 'quadru' Osc. *petiro-pert* 'quater' : Gr. *τέσσαρ-ες* etc., see § 419. Lat. *quīnque*, Umbr. *pumperias* Osc. *pumperias* '*quintiliae' (cp. § 336) : Gr. *πέντε* etc., see § 419. Lat. *quo-m quom-que*, Umbr. *pon-ne* Osc. *pún* 'quom' fr. **k^{*}om-de* (§ 207), Umbr. *pum-pe* 'quomque' : Gr. *πόθεν* etc., see § 419. Lat. *coquō* fr. **quequō*, probably Osc. *popīna* 'coquina' (§ 336) : Gr. *πέπων* 'ripe' *πόπανο-ν* 'sacrificial cake', Mid. Cymr. *popuryes* 'pistrix' (O.Ir. *cucann* 'pistrinum' was a Lat. loan-word) + Skr. *pácāmi* O.Bulg. *pekā* 'I cook', rt. *peq-*. Lat. *quā qua-m*, Umbr. *paf-e* 'quas' Osc.

1) There is no satisfactory foundation for Bersu's assumption (Die Gutturalen p. 134 ff.) that the labial affection had disappeared before *o* in prehistoric Latin and had been restored again in *quod linquō* etc. by form-association.

paa-m acc. 'quam' : Goth. *hƿō* fem. 'quae', s. § 419. Lat. *quoquo-s* 'cook', prim. Ital. **k*ok*o-s* fr. **pok*o-s* (s. above); the form *coquo-s* (*cocu-s*) had its *co-* through analogy to *coquō*.

That *k** = Indg. *q* was still distinguished from Indg. *k̥* in prim. Ital., follows from Umbr. *ekvine* loc. 'equini' (Skr. *áśva-s* etc.), in case this word was not borrowed from Lat. The Ital. form *epo-* is of Gallic origin. Cp. § 426.

Anteconsonantal *que-* became *co-* in Latin. *coquō* from **quequō*, s. above. *colō* fr. **quelō*, *incola* fr. **-queldā* beside *inqui-līnu-s* : Gr. *τέλλω πόλο-ς* etc., see § 427 a.b. *cottī-diē* fr. **quettī-*, s. § 419. This sound-change took place at the same time as **s̥esōr* etc. became *soror*, see § 172, 3. *inquilīnu-s* shows that this change is younger than the weakening of *e* to *i* in unaccented syllables (§ 65 p. 53), and thus also forms like *linguis linguītis* (cp. Gr. *ἐλipes ἐλίπετε*), in like manner probably also *sequere* fr. **sequiso* (Gr. *ἐπεο*), regularly came by their *qu*.

Rem. 1. The *ue* in *quercu-s* remains unclear. See Windisch in Kuhn-Schleicher's Beitr. VIII 39, W. Meyer Literaturbl. f. germ. u. rom. Phil. 1885 p. 154.

In the eighth century U. C. *quo-* became *cu-*. *sequontur* : *secuntur*, *-loquos* : *-locus*, *aequos* : *aecus*, *quom* : *cum*, *quomque* : *cunque*, **quingu-onx* : *quinc-unx* (cp. O.Lat. *oncia*) etc. See Bersu Die Gutturalen p. 53 ff. Correspondingly *ecus* fr. *equos*, see § 172, 2. *sequuntur*, *-loquus*, *equus* etc. were later new formations after forms with *qu+ī*, *ē* etc. as *sequitur*, *-loquī*.

qu passed into *c*, when it became final. *ne-c* from *ne-que*. *ac* fr. **at-c* (cp. *quicquam* § 367) from *atque*.

Rem. 2. It seems to me very doubtful whether the *v* in Lat. *ver-mi-s*, *verrere*, *vellere*, *in-vītu-s*, *vapor*, is a regular continuation of *qu-* (*k̥u-*) (cp. Bersu in the above named work 144 f. 151 f., Stolz Lat. Gramm. § 48).

b) Lat. *c* before prim. Lat. *u*. Stem *arcu-* beside *arqui-tenēns* : Goth. *arhvazna* f. 'arrow, dart'. *quincu-plex* a new formation after *quadru-plex*. *secūtu-s* *locūtu-s*, to *sequor loquor*, new formations after *solūtu-s*, *volūtu-s*.

c) Lat. *c* before consonants, especially before *t*, s. *coctu-s* fr. **quecto-s* (a) : Gr. *πεπτό-ς*, in like manner *coxī* : *ἐπεψα*.

in-section-ēs 'narrationes' *in-sexit* 'dixerit' beside *in-seque* (see Bersu p. 125) *in-quam* (fr. **in-squā-m*) : Gr. ἐν-σπ-ε-ν 'I said' fut. ἐν-σπῆσω, O.Ir. *in-sce* 'speech' O.Bret. *hepp* 'inquit' + Lith. *sakýti* 'to say' O.Bulg. *sokŭ* 'informer, accuser'. *ūnctu-s* *ūnxi* beside *unguō*, see § 421. *quīn(c)tu-s* : Gr. πέμπτο-ς, Goth. *fimfta-*; the Osc. form *Πομπτις* shows, as was already remarked in § 424, that the labialisation before *t* had not yet disappeared in prim. Ital. Lat. *jecur jecin-oris*, beside Gr. ἡπαρ-, seems to have developed *c* regularly in the stem-form **jekⁿ-* (Skr. *yakn-*, Lith. *jekn-*, see § 427 a), after **jecn-* then also *jecin-*. The *c* in *socius* beside *sequor* (Gr. ἀ-οσσητήρ 'helper' with σσ fr. *kⁿḷ* § 427 d, Skr. *sācya-* 'meet to be assisted, valued', rt. *seq-*) and in *col-liciae* beside *liqueō* is easily understood from the older sound-combination *kⁿḷ*, see § 135, and likewise the *c* in *coculu-m* beside *coquō* and in *torculu-s* beside *torqueō*, is to be explained from older *kⁿl* (s. § 269); *musculu-s* may also have arisen from an older **muskⁿlo-s* (§ 419).

Rem. 3. The relation of Lat. *u-ter u-bi nē-cubi* etc. to Umbr. *po-druh-pei* 'utroque' *pu-fe* 'ubi' Osc. *pūtúrús-píd* 'utrique' *pu-f* 'ubi', still remains for the present enigmatical, see Corssen Krit. Nachtr. 26 ff., Bersu p. 138. May we perhaps assume that the three stems *u-*, *qu-* (Skr. *kū-tra*) and *go-* had become mixed? Cp. also § 604 rem. 2.

Rem. 4. The view, that Indg. *q* occasionally appears as *p* in pure Lat. words, is to be rejected. See Bersu p. 143, Stolz Lat. Gramm. § 48.

§ 432. Prim. Ital. *gu* became

a) Lat. *gu*, Umbr. *b* after *æ*. Lat. *unguō unguen*, Umbr. *umen* 'unguen' fr. **umben* (§ 506) : Skr. *añjī-ṣ* 'salve', see § 421. Lat. *stinguō* : + Skr. *tigmá-s* 'sharp, violent' Av. *tiγ-ra-* 'pointed'. Lat. *inguen* : O.Icel. *ökkr* 'tumor' *ökkrvenn* 'swollen'.

Lat. *stinguunt* fr. *stinguont*, like *secuntur*, see § 431 a p. 320.

b) Lat. *v*, Umbr.-Samn. *b* initially before sonantal vowels (except *u*). Lat. *veniō*, Umbr. *bennust* 'venerit' Osc. *kúm-bened* perf. 'convenit' : Gr. *παίρω* etc., rt. *gem-*, see § 421. Lat. *vīvo-s*, Osc. *bivus* pl. 'vivi' : + Skr. *jīvā-s* etc., see § 421. Lat. *veru*, Umbr. *berus* 'verubus' : O.Ir. *bir* 'sting, spit, spear' Cymr. *ber* Corn. *ber* 'veru'. Lat. *-volu-s volare* : Gr. *βολή βάλλω* etc., rt.

gel-, see § 428. *-voru-s vorāre* : Gr. *βορά* etc., see § 428 *a*. Lat. *valēre* : + Lith. *galėti* 'to be able'.

Rem. 1. Lat. *b-* = *g-* is probably to be denied. *bōs* can be explained as an Oscan loan-word, likewise *baetere*, in case it belonged to a root beginning with *g-* (some compare Osc. *baiteis*, to which they give the meaning 'baetis', and Umbr. *e-bet-raf-e* with the supposed meaning 'in exitus').

c) Lat. *v* between sonantal vowels. *avilla* beside *agnu-s* : Gr. *ἀμνό-ς* etc., see § 428 *a*. *nūdu-s* fr. **no(g)medo-s* : Goth. *naqaþs* 'naked' + Skr. *nag-nā-* Lith. *nūga-s* O.Bulg. *nagŭ* 'naked'.

That *-rg**- has become *-rv-* in Lat., does not seem to me to be proved with certainty. The bringing together of *torvo-s* with Gr. *τάρβος* n. 'fright, terror' Skr. *tárjāmi* 'I threaten, abuse, frighten', is not free from objection; the other conjectures, hitherto made, are quite doubtful.

d) Lat. *g* before consonants. *agnu-s* beside *avilla*, see *c*. *sēgni-s* : Gr. *σβ-ῆναι* 'to cease, become still, go out'. *gr-avi-s* : Skr. *á-gr-u-ṣ* 'young womanish' (s. § 290 p. 232). *migrāre* : Gr. *ἀμείβω* 'I change', rt. *meig-*. *glāns* : Gr. *βάλανο-ς* 'acorn' + Armen. *kalin* (gen. *kalnoy*) Lith. *glė* O.Bulg. *želqđ* 'acorn', ablaut *gl-gl- gel-*, cp. § 291, 3.

Rem. 2. If *g* in *gula gulō gurguliō gurgēs*, which represent the rt. form *gl- grr-* (§ 297), had arisen from *g**- which however may be doubted on account of Gr. *γαργαρεῖν γέργερο-ς* and O.Ir. *gelim* 'I consume, devour' (on the interchange *r* : *l* cp. § 282), on its account and at the same time in consideration of *gurdu-s* 'stupid, silly' (: *βραδύ-ς* 'slow, lazy') it must be assumed that orig. *g*ṛ- g*ṛ-* was differently treated from orig. *g*or- g*ol-* : in the former case the labialisation would have been dropped, before *ṛ*, *ḷ* became *or*, *ol*. Then *cultu-s* beside *colō* fr. **quelō* (cp. *pulsu-s* : *pellō*) would probably also have to be traced back first of all to **kḷto-s*, the latter to **kḷto-s*.

§ 433. Prim. Italic *χ** became

a) Lat. *gx* after *no*. *ninguit* : Gr. *νίφει* + Lith. *sniŋga* 'it snows', rt. *sneigh-*, s. § 423. *angui-s anguilla* : O.Ir. *esc-ung* 'eel' (*esc* 'swamp') + Skr. *áhi-ṣ* 'snake' Av. *aži-š* 'dragon', Lith. *angl-s* 'snake'. Beside these Umbr. *ninctu* 'ninguito', with which fikt. *'figito'* (O.Lat. *fiwere* beside *figere*) is parallel.

b) Lat. **gx*, further *v* between sonantal vowels. Acc. *niv-em*

= Gr. *νῆρ-α*, beside *ninguit* (*ninguem* a new formation to *nivem* like *con-junx* beside *con-jux*) and nom. *nix* (§§ 431 c. 552). In like manner *cō-nāveō* beside *cō-nīxī nīctāre*: Goth. *hneivan* 'to bow', rt. *kneigh-*. *g* occurs in Umbr. in *co-negos* *ku-nikaz* 'conixus'.

c) Lat. *f* both initially and medially before *r*; in the latter case *f* passed into *b* (§ 509).

formu-s: Goth. *varmjān* 'to warm' + Skr. *gharmā-s* 'glowing heat'; *formu-s*, later *furnu-s*: + Skr. *ghṛ-ṇā-s* 'glowing heat', rt. *gher-*, see § 423. *feru-s fera*: Gr. *θήρ* etc., see § 429 b. *friō*: Gr. *χρίω* 'I rub over'. *fremō*, *frendō* (§§ 207. 349): Gr. *χρεμίζω* 'I neigh' *χοόμο-ς* 'noise, a lowing, neighing' Goth. *gramjan* 'to make furious' OHG. *gram* 'fierce, angry' + O.Bulg. *gromŭ* 'thunder'. In the case of the two last words the assumption of labialised prim. Ital. *χ* has, it is true, no support outside Italic.

Praenest. *nefrōn-es* Lanuv. *nebrundin-es*: Gr. *νεφρό-ς* etc., see § 423.

Rem. That initial and medial *χ** passed into *f* before *r* (whence *b* medially), but otherwise medially into *g*, brings to mind the relation *fūmu-s*: *rubri*: *mediu-s* (§ 370).

Old Irish.

1. Indg. *q*, *g*, *gh* without labialisation.

§ 434. Indg. *q*. O.Ir. *cara* Cymr. *car* 'friend': Lat. *cāru-s*, Goth. *hōrs* 'fornicator' + Lett. *kārs* 'covetous, lascivious' *kār-dināt* 'to lead into temptation'. O.Ir. *canaim* 'I sing', O.Corn. *cheniat* 'cantor': Lat. *canō* etc., see § 430. O.Ir. *crū* Cymr. *crau* Corn. *crow* 'blood': Gr. *κρέας* etc., see § 418.

ēcath (pronounce *ēgaḃ*) 'hamus': + Skr. *anākā-s* etc., see §§ 212. 513.

O.Ir. *cuach* Cymr. *cog* 'cuckoo': Gr. *κόκκυξ* Lat. *cucūlu-s* MHG. *kuckuk* + Skr. *kōkilā-s* 'cuckoo', Lith. *kukū'ti* 'to call cuckoo' O.Bulg. *kukavica* 'cuckoo'. See § 514.

O.Ir. *ōs uas* 'above, over', Cymr. *uch* 'above', Gall. *Uxello-dūnu-m* 'Hightown': Gr. *αὔξω* 'I increase', Lat. *auxiliu-m* 'increase, reinforcement' + Lith. *dukszta-s* 'high'. See § 517.

Indg. *g*. O.Ir. *gáir* 'call', Cymr. *gawr* 'clamor': Gr. *γηρόω* etc., see § 420.

O.Ir. *tech teg* 'house', O.Bret. *bou-tig* 'stabulum': Gr. *στέγω* etc., see § 420. O.Ir. *δg* 'uninjured, whole': Lat. *augeō* etc., see 430. See § 522.

Indg. *gh* = prim. Kelt. *g*. O.Ir. *in-grennim* 'I pursue': Lat. *gradior* etc., see § 430.

O.Ir. *lige* 'bed': Gr. *λέχος* etc., see § 425. See § 526.

2. Indg. *q*, *g*, *gh* with labialisation.

§ 435. *kɥ* and *gɥ* (latter = *g* and *gh*), with full developed *ɥ*, may be put down as prim. Kelt. Since there is no trace of a difference between these and Indg. palatal sound *+*
ɥ: cp. Gall. *epo*- prim. Brit. **epo*- (Cymr. *ebol* 'foal', § 390 p. 293) O.Ir. *ech* 'horse' = Indg. **ekɥo*-.
The treatment of the various forms of articulation was just as little uniform as in Italic.

§ 436. Prim. Kelt. *kɥ* appears in Irish as *c*, in Brit. and Gall. as *p*). O.Ir. *cethir* 'four', O.Brit. *Πετροναρία* a town (Ptol.), O.Cymr. *petguar* Corn. *peswar* Bret. *pevar* 'four', Gall. *petor-ritum* 'a four-wheeled chariot': Gr. *τέσσαρες* etc., see § 419. O.Ir. *cōic* O.Cymr. *pimp* Corn. *pymp* Bret. *pemp* 'five', Gall. *πεμπι-δουλα* 'πεντάφυλλον' (Dioscor.) from prim. Kelt. **kɥerəkɥe* (§ 339), Indg. **perəqe*, see § 419. O.Ir. *cruim* Cymr. *pryf* 'worm' (prim. Kelt. **kɥrimi*-): *+* Skr. *kṛmi*-§ Alban. *krimb-i* Lith. *kirmėlė* 'worm'. O.Ir. *co-sc* 'a setting right, punishment' Cymr. *co-sp*: Gr. *ἐν-σπ-ε-ν* 'I said', rt. *seq*-. O.Ir. *sesc* 'unfertile', Cymr. *hysp* 'dry, withered', prim. Kelt. **siskɥo-s*: Lat. *siccus*-, cpf. **sit-qo-s* (§§ 419. 516).

O.Ir. *cōic* (pronounce *cōig*) 'five' fr. prim. Kelt. **kɥerəkɥe* (cp. above). See §§ 212. 513.

O.Ir. *ain-ech en-ech* 'face' Cymr. Corn. Bret. *en-ep*: Gr. *ἐν-ωπή* 'countenance', Lat. *oculu-s* *+* Lith. *aki-s* O.Bulg. *oko* (gen. *očese*) 'eye'. See § 514.

1) In Gall. probably dialectically also still *kɥ*, in *Sequana*.

kut probably became *kt* in prim. Kelt., then further *cht*, so that this combination fell together with *pt* and *kt* (§§ 515. 517). In Prim. Kelt. *kt* from *kut* stood beside *ky*, as in Lat. *coctus lictus* beside *coquō linguō*. O.Ir. *nocht* Cymr. *noeth*, Corn. *noyth* 'naked': Goth. *naqaþs* etc., see § 432 c. O.Ir. *snechta* 'snow' from rt. *sneigh-* (cp. § 552). Perhaps also here O.Ir. *in-nocht* 'hac nocte', Cymr. *peu-noeth* 'quavis nocte', since the *v* in G. *víʒ* seems to point to labialised *q* (§ 427 c).

Rem. From the form *maqa-* (gen. *maqi*) 'son' (Cymr. *map*), found on the Ogam inscriptions (p. 9), it cannot be concluded with certainty that *ky* was still generally spoken in Irish for intervocalic *c* at the time these inscriptions were written. In the first place it is a question how the 'status durus' in O.Ir. *mac macc* beside *en-ech* 'facies' and *ech* 'horse' is to be regarded (cp. § 514). A satisfactory explanation of the non-aspiration of the *c* in this word, as also in the forms *mucc* 'pig' (Cymr. *moch*: Gr. ἀπομύσσω 'I blow my nose' μυκτῆρ 'nose', Lat. *mūcu-s* 'mucus of the nose' + Skr. *muñcāti* 'lets loose, lets out' also used of bodily secretions, Lett. *muki* 'to flee' Lith. *maukti* 'to strip, let glide'), *cacc* 'excrement' (Skr. *śākan-* 'stercus', Lith. *szikū* 'caco'), *lēicim* 'I leave', that is, **leiky-iō* (Gr. *leino* etc., see § 427 a), has, so far as I know, not yet been given.

§ 437. Prim. Kelt. *gy* = Indg. *g* became

a) Ir. Brit. *b* initially. O.Ir. *biu beo* Cymr. *byw* 'alive': Lat. *vīvo-s* etc., see § 421. O.Ir. *bō* Mid.Cymr. *buch* 'cow': Gr. *βοῦς* etc., see § 428 a. O.Ir. *ben* 'woman', O.Corn. *benen* 'sponsa': Goth. *qinō* + Armen. *kin* Pruss. *genna* (i. e. *gēna*) O.Bulg. *žena* 'woman'; O.Ir. gen. *mna* fr. **bnās*: Gr. *μνάομαι* etc., see § 428 a. O.Ir. *at-bail* 'perit' 3. pl. *at-balat*: OHG. *quelan* 'to have a violent pain' Ags. *cwelan* 'to die' + Lith. *gėlti* 'to feel great pain' *giltinė* the goddess of death, O.Bulg. *žālī* 'pain, grief' fr. **gēlī* (§ 76), rt. *gel-*. O.Ir. *broo brō* (gen. *broon*) Cymr. *breuan* 'mill-stone': + Skr. *grāvan-* 'stone for pressing out the soma-juice'. O.Ir. *brāge* (gen. *brāgat*) 'neck': Gr. *βρόγχος βρόγχος* 'throat', MHG. *krage* 'neck, gullet' (rt. *ger-* 'swallow'?).

b) Ir. *g* before *u*. O.Ir. *guth* 'voice, word' fr. **gu-tu-s*, to Gr. *γυ-* beside *βο(φ)-ή*, see § 428 c.

c) Ir. Brit. *g* medially before *n*. O.Ir. *uan* Cymr. *oen* 'lamb': Gr. *ἀμνό-ς* etc., see § 428 a. On the transformation of *-gn-* cp. § 523.

See p. 567,
Additions

§ 438. From prim. Kelt. *gu* = Indg. *gh* we may a priori assume that it was treated like *gu* = Indg. *g*.

a) Initially. Words with *b-* are unknown to us. O.Ir. *gonim* 'I wound, kill' perf. 3. sg. *geguin* is remarkable, since this word seems to belong to Gr. *φόνος* rt. *ghen-* (§ 429 a. b.).

b) Medially. With *b* after a nasal O.Ir. *imb imm* (gen. *imme*) 'butter', Cymr. *ymen-yn*, stem **imben-* = Lat. *ungen*, OHG. *ancho*, see § 421. Beside these Mid.Ir. *esc-ung* 'eel' : Lat. *anguis* etc., see § 433 a. Cp. also Mid.Ir. *inga* O.Cymr. *eguin* 'nail' : Lat. *unguis* etc. with Indg. *gh* (§§ 429 c. 553). ~~On what this difference of treatment depends, I cannot say.~~

O.Ir. *snigid* 'it drops' : Gr. *νίφα* etc., see § 423. O.Ir. *laigiú* Mid.Cymr. *llei* 'minor' : Gr. *ἐλαφρό-ς ἐλαχύν-ς* etc., see § 429 a. c

Germanic.

1. Indg. *q*, *g*, *gh* without labialisation.

§ 439. Indg. *q*. Goth. *us-skava-* 'cautious, sober', OHG. *scouwōn* 'to look', O.Icel. *skyn* 'insight' : Gr. *θυο-σκόο-ς* 'sacrificing priest' *κοίω* 'I mark', Lat. *caveō* + Skr. *kavī-* 'seer' *ā-kuvatē* 'intends'.

Goth. *hāils* 'healthy, wholesome', OHG. *heil* 'healthy, whole, rescued', Ags. *hæl* O.Icel. *heill* n. 'good fortune, favourable token' : O.Ir. *cél* O.Cymr. *coil* 'augurium' + Pruss. *kail-ūstiska-n* acc. 'health' O.Bulg. *cělū* 'sound, whole'. Goth. *hāidu-s* 'manner', OHG. *heit* Ags. *hād* 'state, condition, peculiarity' + Skr. *kētú-* 'luminous phenomenon, picture, form'. OHG. *houwan* O.Icel. *hoggva* 'to hew' : Lat. *cū-dō* + Lith. *káu-ju* O.Bulg. *ku-jq* 'I strike, forge'. Goth. *hlifa* 'I steal' : Gr. *κλοπείς* 'thief', Lat. *clepō* + Pruss. *au-klipts* 'hidden' O.Bulg. *po-klopū* 'a covering'. Goth. *veiha* 'I fight' : Lat. *vincō* + Lith. *vėkā* 'power, strength' *ap-veikiū* 'I compel', rt. *veiq-*.

Goth. *hals-agga* 'curve of the neck', OHG. *angul* 'angle' : Gr. *ἄγκων* etc., see § 425.

OHG. *wīgant* 'warrior', O.Icel. *vīg* 'battle' *veig* 'strength', fr. the same rt. *veiq-*, whence Goth. *veiha* s. above. Goth.

hugs O.S. *hugi* O.Icel. *hugr* 'mind, heart, courage': + Skr. *śuc-* 'ardour, care, trouble', Armen. *sug* (gen. *sgoy*) 'grief'.

Indg. *g*. Goth. *kalds* OHG. *kalt* O.Icel. *kaldr* 'cold': Lat. *gelu* etc., see § 430. Goth. *áukan* 'to add, augment', OHG. *auhhōn ouhhōn* O.Icel. *auka* 'to increase': Lat. *augeō* etc., see § 430.

Indg. *gh*. Goth. *fra-gildan* 'to requite', OHG. *geltan* 'to repay, compensate': + O.Bulg. *žlědā* 'I pay as a fine'. Goth. *gaggan* OHG. OS. *gangan* O.Icel. *ganga* 'to go': + Skr. *janaghā-* 'heel-bone', Lith. *žengiū* 'I stride', rt. *ghenagh-*.

Goth. *dags* OHG. *tag* O.Icel. *dagr* 'day': + Skr. *ni-daghā-s* 'hot season', Alban. *diek* (*dieg-*) 'I burn', Lith. *dagà* 'harvest time', Pruss. *daga-gaydis* 'summer-wheat' O.Bulg. *žega* 'I burn' (§ 379 rem.), rt. *dhegh-*. Goth. *steigan* OHG. *stīgan* O.Icel. *stīga* 'to climb': Gr. *στείχω* etc., see § 422. Goth. *þragja* 'I run' OHG. *drigil* 'servant' (runner): Gr. *τρέχω* 'I run' fut. *θρέξομαι* + Armen. *durn* (gen. *drgan*) 'a potter's wheel' (cp. Gr. *τροχός*), rt. probably *thregh-* (§ 553).

2. Indg. *q*, *g*, *gh* with labialisation.

§ 440. Pre-Germanic *q*, *g*, *gh* became through the sound-shifting in prim. Germ. *χʷ* (*ʒʷ*), *kʷ*, *ʒʷ*. The labialisation may be put down as a full *ʷ*, since no trace of a difference exists beside the combination palatal sound + *ʷ*. Cp. e. g. on the one hand Goth. *leihva* 'I lend' = Gr. *λείπω* rt. *leiq-*, Goth. *hva* OHG. *waz* 'what' = Lat. *quo-d* st. **qo-* and on the other hand Goth. *aihva-* 'horse' (in *aihva-tundi* 'πάτος') = Skr. *áśva-* Indg. **ekʷo-*, Goth. *hveits* OHG. *wīz* 'white' fr. rt. *kʷeid-* (§ 397); further prim. Germ. **snī(ʒ)ʷīþi* 'it snows' = Indg. **snéigheti* or **snīghéti* with the same dropping of the *ʒ* as in **ma(ʒ)ʷ-i* (Goth. *mavi*) 'girl', fem. to Goth. *mag-u-s* 'boy' (see §§ 443. 444 c).

§ 441. Prim. Germ. *χʷ*, *ʒʷ* = Indg. *q*.

Interrog. pronoun Goth. nom. m. *hva-s* fem. *hvō* n. *hva*, gen. m. n. *hvi-s*, OHG. nom. m. *hver wer* n. *hwaz waz*, O.Icel.

nom. n. *hvat* gen. m. n. *hvess* : Gr. *πο-τε-* etc., see § 419. Ags. *hwōsta* OHG. *huosto* (fr. **hwuosto*) 'cough' : + Skr. *kās-a-tē* 'he coughs', Lith. *kōs-iu* 'I cough'. Goth. *leihvan* (pret. *lāihvō*) OHG. *līhan* (pret. *lēh*) 'to lend' : Gr. *λείπω* etc. see § 427 a. Goth. *saihvān* OHG. *sehan* 'to see' : Gr. *ἐπομαι* etc., see § 419. Goth. *ahva* OHG. *aha* 'water' : Lat. *aqua*. Goth. *þeihvō* f. 'thunder' from prim. Germ. **þenχuōn* (§ 67, 1. § 214) : + O.Bulg. *tačā* fr. **tonk-ja* 'thunder-shower'. Goth. *arhvazna* 'dart' : Lat. *arqui-tenēns*, see § 431 b.

Goth. *siuns* OS. *siun* O.Icel. *sjōn* 'a seeing, face', prim. Germ. **se(ʒ)u-ni-s*, to Goth. *saihvān*. Other examples of this nature § 444 c.

On the cases, in which *f* or *þ* appear for *χ*, *ʒ* and in which *u* has disappeared after *χ*, *ʒ*, see § 444.

§ 442. Prim. Germ. *kʷ* = Indg. *g*. Goth. *qius* (st. *qiva-*) OHG. *quec* O.Icel. *kvíkr* 'alive' : Gr. *βίo-ς* etc., see § 421. Goth. *qiman* (pret. *qam*) 'to come', OHG. *queman* (pret. *quam*) O.Icel. pret. *kvam* : Skr. *gám-a-ti* etc., see § 421. Goth. *qinō* OHG. *quena* 'wife' O.Icel. gen. pl. *kvenna* (concerning the nom. sg. *kona* see § 444 b) : O.Ir. *ben* + Armen. *kin* O.Bulg. *žena*, see § 437 a. Goth. *asilu-quairnu-s* 'μύλος ὀνικός', 'mill-stone', OHG. *chuirna* 'mill-stone, mill', O.Icel. *kvern* 'mill' : + Lith. *gìrnos* pl. 'mill-stones, mill' O.Bulg. *žrīny* 'mill'. Goth. *riqis* (st. *riqiz-a-*) 'darkness' : Gr. *ἔρεβος* etc., see § 421. Goth. *naqaþs* 'naked' : Lat. *nūdu-s* etc., see § 432 c. Goth. *siggan* OHG. *sinchan* O.Icel. *sökkva* 'to sink' : Gr. *εἶβω* 'I let fall in drops, pour down' (for **εἶβω*, cp. § 564), rt. *seiq-*, a secondary form of *seiq-* (Skr. *siñcāti* 'pours forth', OHG. *sīhan* 'to filter'); the pret. Goth. *sagg* OHG. *sanch* O.Icel. *sökk* arose through passing into the analogy of *bindan* : *band* (rt. *bhendh-*) etc. (cp. § 67 rem. 1).

On *p* for *kʷ* and the cases in which *u* had disappeared after *k*, see § 444.

§ 443. Prim. Germ. *ʒʷ* = Indg. *gh*. Goth. *varmjan* 'to warm', OHG. *warm* O.Icel. *varmr* 'warm' : Lat. *formu-s* etc., see § 423. Goth. *snáivs* OHG. *snēo* (gen. *snēwes*) O.Icel. *snār*

(gen. *snævar*) 'snow', prim. Germ. **snai(ɣ)u-a-z*, OHG. *snīwit* Ags. *snīweð* 'it snows', infin. MHG. *snīwen* 'to snow', part. O.Icel. *snivenn* 'covered with snow': Gr. *νίφ-α* etc., see § 423. Goth. *hneivan* 'to bow': Lat. *cō-nīvēō*, root *kneigh-*, see § 433 *b*. OHG. *nioro* m. O.Icel. *nýra* n. 'kidney', prim. Germ. **ne(ɣ)u-rōn*: Gr. *νεφρός* etc., see §§ 423. 433 *c*.

On prim. Germ. *ɣ* fr. *ɣu* see § 444 *b*.

§ 444. The following changes, which concerned the labialised sounds, as such, took place in the period of the prim. Germ. community.

a) *p*-sounds for the *kɥ*-sounds.

f for *ɣu* = Indg. *q*. **uulfa-z* 'wolf', Goth. *vulfs* OHG. *wolf* O.Icel. *ulfr*: Gr. *λύκο-ς* (§ 427 *c*) + Skr. *vṛka-s*, Indg. **uļgo-s* 'wolf'. Goth. *fidvōr* OHG. *fior* Ags. *fyðer-* O.Icel. *fjörer* 'four': Gr. *τέσσαρ-ες*, Indg. **qetɥer-*, see § 419. **fimfi* 'five', Goth. *fimf* OHG. *fimf finf* Ags. *fif* O.Icel. *fimm*: Gr. *πέντε*, Indg. **penqe*, see § 419. Less certain is OHG. *forha* 'pine' *vereh-eih* Lango-Bard. *fereha* 'aesculus': Lat. *quercu-s querqueu-s*, see § 431 rem. 1.

b for *ɣu* = Indg. *q*. By the side of **uulfa-z* stood a fem. **uulbī* 'she-wolf', by § 530 fr. Indg. **uļqī* (Skr. *vṛkī*), hence OHG. *wulpa* MHG. *wülpe*, cp. § 532. Beside this O.Icel. *ylgr* 'she-wolf', the *g* of which arose regularly in the cases with suffix-form *-ið-*, e. g. gen. **uulɣu-iðs*; *u* was here forced out.

p for *kɥ* = Indg. *g*. Goth. *vairpan* OHG. *werfan* O.Icel. *verpa* 'to throw': + Skr. *vṛṇákti* 'throws to the ground' perf. *vavárja*, O.Bulg. *vrǐga* 'I throw'. OHG. *sweifan* 'to set in revolving motion, swing, meander' Ags. *swāpan* 'to swing': + Lith. *svaikstù* 'I become dizzy' pret. *svaigaũ*, *svaigulỹ-s* 'dizziness' *svaiginěju* 'I stagger with dizziness'.

This transition to *p*-sounds seems to have been occasioned by an *u* in the preceding or following syllable (dissimilation).

Rem. 1. So far as I can see, the only difficulty lies with *fimf*. It is possible that the orig. form was **kɥenkye* as in Ital. and Kelt. (§§ 336. 339). Hence **kɥempe* like **sɥeip-* fr. **sɥeiku-*, further **pempe* through assimilation of the initial sound to the medial *p* or to the initial sound of the word for four? Or did Indg. **penqe* become **pempe* in Germ. direct-

ly by assimilation? On these *p*-sounds for *q*-sounds, see now also Kluge in Paul-Braune's Beitr. XI 560 ff.

b) Loss of the labialisation before *u* (cp. § 180).

$\mathfrak{z}(u)$ = Indg. *q* (§ 530). 1. pl. pret. * $\mathfrak{s}\mathfrak{e}\mathfrak{z}(u)umi$ 'saw' (Goth. *sathvan*), * $\mathfrak{l}\mathfrak{i}\mathfrak{z}(u)umi$ 'lent' (Goth. *leihvan*) etc. : Ags. *sæzon* O.Fris. *sāgen*. Goth. *sēhvum* OHG. *sāhun* Ags. *sāwon* (beside *sæzon*) were new formations.

$k(u)$ = Indg. *g*. Part. * $k(u)umana-$ 'come' OHG. *koman* Ags. *cumen* O.Icel. *komenn*; OHG. *quoman* Goth. *gumans* were new formations. * $k(u)uru-z$ 'heavy' Goth. *kauru-s* : Gr. *βαρύς* Skr. *gurú-ṣ*, see § 428 a. * $k(u)unō$ 'wife' O.Icel. *kona* : Bœot. *ḡavá*, see § 428 a. **sunək(u)umi* 'we sunk' OHG. *sunchun*; Goth. *sugqum* was a new formation.

$\mathfrak{z}(u)$ = Indg. *gh*. * $\mathfrak{z}(u)únþið$ 'battle' O.Low Germ. *gūðea* O.Icel. *gunnr* = Skr. *hatja-* 'a killing' Lith. *ginczià* 'strife' (cp. § 249); to these Gr. *φα-τό-ς φόν-ο-ς* etc., rt. *ghen-*, see § 429 a. § 438 rem. * $\chi ni\mathfrak{z}(u)umi$ 'we bowed' : OHG. *nigun* Ags. *hnizon* O.Icel. *hnigum* Goth. *hnivum* was a new formation.

c) $\mathfrak{z}u$ became *u*, a change, which befell every $\mathfrak{z}u$ that still remained over after the action of the sound-law, named under *b*.

(\mathfrak{z})*u* = Indg. *q*. * $se(\mathfrak{z})u-ni-s$ 'face' Goth. *siuns* etc., see § 441. * $t\mathfrak{e}(\mathfrak{z})u-\delta$ f. 'arrangement' Goth. *tēva*, to OHG. *gi-zehōn* 'to arrange, regulate', Gr. *δεῖπνο-ν* 'meal, meal-time' (fr. **δεπνλο-ν*, § 639), rt. *deq-*. * $a(\mathfrak{z})u-ið$ 'marshy country, island' (adj. formation, properly 'the watery', to Goth. *ahva* OHG. *aha* 'water', § 441); OHG. *auwa ouwa* O.Icel. *ey* pl. *eyjar*. Part. * $li(\mathfrak{z})u-aná-s$ 'lent' (Skr. *ri-ric-āná-s*, to Goth. *leihvan*) OHG. *-liwan*. Optative stem * $s\mathfrak{e}(\mathfrak{z})u-i-$ (to Goth. *sathvan* 'to see') OS. *gi-sāwi* pl. *-sāwin*.

(\mathfrak{z})*u* = Indg. *gh*. * $(\mathfrak{z})uar-ma-$ 'warm' and other examples see § 443.

Rem. 2. Therefore towards the close of the prim. Germ. period there stood side by side: pres. **liχuð* (Goth. *leihva*) : pret. indio. pl. **li-zumi* : pret. opt. **liyi-* part. **liyana-*; **χniχuð* (Goth. *hneiva*) : **χni-zumi* : **χniyi-* **χniyana-*. The paradigms of the separate Germanic dialects were brought about by manifold levellings. The prim. Germ. phonetic position was nowhere purely retained.

Rem. 3. If Goth. *augō* OHG. *ouga* O.Icel. *auga* n. 'eye' belongs to Gr. ὄπ-ων-α. Lith. *aki-s* etc., the form must be explained from an old stem-change *aǵ(ʷ)-un- (Indg. *oǵ-ʷ-) and *a(ǵ)ʷ-n- *a(ǵ)ʷ-én- : *aǵ- and *aʷ- became amalgamated to aʷǵ- in prim. Germ.

d) ǵʷ became ǵʷ after a nasal, and then this remained (§§ 530. 538). Hence prim. Germ. *sinǵʷiði 'sings' Goth. *siggviþ*. This verb however has not been etymologically satisfactorily explained, the root was probably *senǵh-* or *seǵq-*.

e) ʰʷt became ʰt. *sexti- 'sight, face' (to Goth. *saihvān*) OHG. *siht* OS. *gi-siht*. *leǵhta- *liǵhta- 'light, easy' (§ 214) Goth. *leihts* OHG. *liht* O.Icel. *lǣtr*, to Gr. ἐλαφρό-ς ἐλαχύ-ς etc., s. § 429 a. c.; ʰt was here = Indg. *gh+t*, concerning which s. § 552. *fimfta-* = Indg. *penǵto- has possibly preserved a trace of the labialisation once present, see above *a* with rem. 1.

The phonetic position, which was called into existence by these prim. Germ. changes, was on the whole preserved free from new shiftings in Goth.

Rem. 4. The form *ni-h* 'neque' fr. *ni-hv(i) suggests the conjecture that the *hv* in *ldihv* 'he lent' (*lei hvān*) *sahv* 'he saw' (*saihvān*) was brought about by levelling.

Initial *hw-* became *ʰ-* in OHG. (*hwer wer*), while medial *kw*, *hw gw* lost the *w* by § 180 (*sinchit* 'sinks', *lihīt* 'lends', *singit* 'sings').

b. The language-group without labialisation.

Aryan.

§ 445. Indg. *q*, *g*, *ǵh* were first of all universally *k*, *g*, *ǵh* in prim. Aryan. Then before original *e-* and *i-*vowels and before Ar. *i* = Indg. *ə*, they became the palatal explosives *c*, *j*, *jʰ*; after the completion of the palatalisation *e*, *ē* passed into *a*, *ā* (§§ 62. 70). All further sound-changes, which made their appearance in regard to the place of articulation, belong to the individual development of the Ar. dialects.

§ 446. Prim. Ar. *k*, *c* = Indg. *q*. The sounds remained unchanged in Sanskrit. In Iranian *k* became the spirant *x* be-

fore consonants, and *c* became an *š*-sound (Av. *š* O.Pers. *š*) before *i*.

§ 447. Prim. Ar. *k*. Skr. *ká-s* 'who?' Av. *kas-ciḥ* 'whoever, each' O.Pers. *kaš-ciy* 'whoever': Lith. *kà-s* etc., see § 419. Skr. *kakṣa-s* 'axilla', Av. *kaša-* m. 'shoulder': + Lat. *coxa* etc., Indg. **qokso-* **qoksa-*, see § 430. Skr. *kr-tá-* (*sq-skṛta-* 'prepared') Av. *ker'ta-* O.Pers. *kar-ta-* 'made': + Gr. *ῥαίνω* 'I accomplish', Lat. *ceru-s* *creare*. Skr. *kā-s-a-tē* 'he coughs': Lith. *kós-iu* etc., see § 441. Skr. *vṛk-a-* Av. *vehrk-a-* 'wolf': Lith. *vilka-s* etc., see § 427 c. § 444 a. Skr. *śúṣ-ka-* (fr. **suṣ-ka-*, § 557, 4) Av. *huš-ka-* O.Pers. *uš-ka-* 'dry', suffix *-qo-*, see § 419.

In like manner Skr. *k* also regularly before *ir* = Indg. *ṛr* and before *īr* = Indg. *ṛ* (§§ 287. 290. 306), as *kir-á-ti* 'pours out' *kīr-ṇá-* 'covered over', to perf. *ca-kár-a*. Cp. *gir- gīr-* § 450.

Iranian *x* = prim. Ar. *k* (§ 416). Part. Skr. *uktá-* Av. *uxta-* 'spoken' fut. Skr. *vakṣyati* Av. *vaxšyēiti* 'he will speak': Armen. *goč-e-m* 'I scream, roar' (P), Pruss. *en-wackē* 'he calls' + Gr. *ἔπος* 'speech, word', Lat. *vōx*, O.Ir. *iar-faigid* 'inquisitio', OHG. *gi-wahannen* 'to mention' perf. *gi-wuog*, rt. *ueq-*. Skr. *śukrá-* 'luminous, white', Av. *suxra-* 'red' O.Pers. *puzra-* (*p* = *s*-, § 397) proper noun: to Skr. *śuc-* Goth. *hugs* etc., s. § 439. Skr. *rēkṇas-* 'kingdom', Av. *raēxnah-*. Av. O.Pers. *taxma-* 'quick, strong', Av. *taka-* 'course', Skr. *tákti* 'runs, hastens': Alban. *ndiek* 'I pursue, drive away, hunt', Lith. *tekù* O.Bulg. *tekā* 'I run' + O.Ir. *techim* 'I flee'.

§ 448. Prim. Ar. *c*. Skr. Av. *ca* O.Pers. *cā* 'and': + Gr. *τὲ* etc., see § 427 b. Skr. *catvār-as* Av. *caḥwār-ō* 'four': Lith. *keturì* etc., see § 419. Skr. *pāñca* Av. *panca*: Lith. *penkì* etc., see § 419. Skr. *sácatē* Av. *hacaitē* 'companies', Indg. **segetaj-*: Lith. *sekù* etc., see § 419. Gen. Skr. *vācas-as* Av. *vacanḥ-ō* 'of a word', Indg. st. **ueges-*, to Skr. *uktá-* etc., see § 447. Skr. *ci-d* Av. *ci-ḥ* O.Pers. *ciy* 'any, some' (generalising particle): + Gr. *τι* 'anything whatever' Lat. *qui-d*, Indg. **qi-d*, see § 427 b. Skr. *āpa-citi-* 'atonement, punishment': Gr. *τί-σις*, see

§ 427 a. Skr. *śuc-i-ś* 'luminous, bright', Av. *saoci-ś* 'burning, splendour', to *śukrá- suzra-* § 447.

Av. *śy* O.Pers. *šy* (written *šiy*, see § 125 p. 116) = prim. Ar. Skr. *cy*. Skr. *cyáv-a-tē* 'is active, stirs', Av. *śyao-pna-* m. 'deed, work' (cp. Skr. *cyāu-tná-m* 'preparation, undertaking') O.Pers. *a-šiyav-am* 'I went, walked': Armen. *ču* 'a breaking up' + Gr. Hom. ἔ-σσευε σεῦε 'he drove, hunted', see § 427 d. § 489. Av. compar. *tašyah-* 'quicker' beside superl. *tancišta-*.

Rem. Through new formations *k* and *c* came to stand in the Ar. dialects in sound-combinations, in which they would not have regularly arisen. Cp. § 451 rem. § 454 rem. and § 427 rem.

c instead of *k*. Nom. acc. sg. Skr. *vācas* Av. *vacō* 'word' for **vakas* = Indg. **uegos* (Gr. ἕπος) after *vācas* = Indg. **ueges-* (cp. Gr. ἕπε-ο-) in the other cases. Skr. 3. sg. perf. *ci-cāy-a* for *ci-kāy-a* 'disposed into strata' = Indg. **ye-qóje-*, to pres. *ci-nó-mi*. Skr. *vāc-mi* 'I speak' for **vak-mi*, cp. Ved. regular *vivak-mi*. Skr. *pañcat-* 'the number five' for **pankat-* = Indg. **penqut-* (§ 427 a) after *pāñca*.

k instead of *c*. Gen. Skr. *ká-sya* Av. Gāp. *ka-hyā* beside regular *ca-hyā* 'whose' (Indg. **qe-sjo*, Gr. τίο τοῦ) after *ka-* = Indg. **qo-* in *ká-s* etc. Skr. *ná-ki-ś* 'nobody' beside Av. *ci-ś*. Skr. *upa-vāk-īya-s* beside *upa-rūc-īya-s* 'he who is to be addressed', cp. *upa-vāk-á-s* 'address'.

§ 449. Prim. Ar. *g, j* = Indg. *g*. The sounds remained unchanged in Sanskrit. In later Av. *g* became *γ* initially before consonants except *r* and medially everywhere except after *ṛ, z, ž*, the same sound was dropped before *v*, and medial *j* became *ž* except after *n* and *z*.

§ 450. Prim. Ar. *g*. Skr. *ga-tá-* Av. *ga-ta-* 'gone' Indg. **gm-tó-*, Skr. *gā-tú-ś* 'step, gait, place, place of sojourn' Av. *gā-tu-ś* O.Pers. *gā-pu-ś* 'place, chair, throne' prim. f. **gm-tu-s* : + Gr. βα-τό-ς etc., rt. *gem-*, see § 421. Skr. *gāúś* Av. *gāu-ś* 'ox' : + Gr. βοῦς etc., see § 428 a. Skr. *grivá-* Av. *grīva-* 'neck' : O.Bulg. *griva* 'mane'. Skr. *ugrá-* Av. Gāp. *ugra-* 'strong, powerful' beside Skr. *ōjas-* Av. *aojah-* (§ 451) : + Lat. *augeō* etc., see § 430. Skr. *bhāga-s* 'blessing, dispenser of blessings' *bhāgá-s* 'blessing, share, lot', Av. Gāp. *bāga-* 'distribution, portion' O.Pers. *baga-* 'god' : O.Bulg. *bogo-* (nom. *bogŭ*) 'god' *u-bogŭ* 'not rich, poor' + Gr. φαγο-ς 'enjoying, eating', rt. *bhag-* 'to distribute'. Skr. *yugá-m* 'yoke' : O.Bulg. *igo* etc., see § 420.

Skr. *anḡūli-ṣ anḡuṣṭha-s* 'thumb, toe', Av. *anḡušta-* m. 'toe': Alban. *ḡišt* 'finger'. Av. *mazga-* 'marrow' beside Skr. *majján-* (§ 590. 591): cp. O.Bulg. *mozgŭ* + OHG. *marg* n. O.Icel. *mergr* m. 'marrow'; the Skr. form points to *g*, the Germ. to *gh* (cp. Bartholomae Kuhn's Ztschr. XXVII 352).

In like manner Skr. *g* regularly also before *ir* = Indg. *rr* and before *ir* = Indg. *r̥* (cp. § 447). *giri-ṣ* = Av. *gairi-ṣ* 'mountain', Indg. **grr-i-s*. Gen. *gir-ás* = Av. *gar-ō* 'hymn's', instr. pl. *gīr-bhiṣ* (**gīr-bhis*). *-gira-* = Av. *-gara-* 'swallowing', Skr. *girāti gilāti* 'swallows', part. *gīrná-* 'swallowed'.

Late Av. *γ* = Gāp. O.Pers. Skr. *g*, as *baya-* = O.Pers. *baga-* 'god', see § 478.

Late Av. *v* = Gāp. *gv*. *hvova* = Gāp. *hvogva-* a proper family name, cp. Bartholomae Bezenb. Beitr. VII 188.

§ 451. Prim. Ar. *j*. Skr. *jivá-* Av. *jīvya-* 'alive', O.Pers. 2. sg. imper. *jīvā* 'live': + Gr. *βίω-ς* etc., see § 421. Skr. *jyā-* Av. *jyā-* 'bow-string': + Gr. *βιό-ς* etc., see § 428 a. Gen. Skr. *ōjas-as* Av. *aojānəh-ō* (i. e. *aožānəh-ō*, see § 478 rem. 1.) 'of strength', orig. stem-form **auges-*, beside Skr. *ugrá-* Av. Gāp. *ugra-*, § 450. Skr. 3. sg. perf. *ja-gāma* Indg. **ge-góme*, Av. pres. 3. sg. conj. *jam-aīti* imper. *jan-tu* orig. form **gem-e-ti* **gem-tu*: + Gr. *βαίνω* etc., rt. *gem-*, see § 450.

Late Av. *ž*. *naē-niž-aiti* intens. 'washes off, removes' beside Skr. mid. *nē-nik-tē* 'washes off': + Gr. *χέρ-νιβ-α* etc., see §§ 427 a. 428 d. Cp. § 478.

Rem. Through new formations Ar. *j* for *g* and vice versa. Cp. §§ 448 rem. 454 rem. and 428 rem.

j for *g*. Nom. acc. Skr. *ōjas* Av. *aojō* 'strength' for Ar. **augus*, Indg. **augos* (cp. Lat. *augus-tu-s*) after the stem-form **ajjas-* = Indg. **auges-* in the other cases, see above. Opt. Av. *jamyāh* O.Pers. *jamiyā*, indic. Av. *jasaiti* (beside regular Skr. *gamyāt gáchatī*, cp. §§ 228. 229. 450; Gāp. 2. sg. imper. *gaidī* = Skr. *gahī* was also regular) after the analogy of *jamaiti* etc. Skr. *yunājmi* 'I yoke' for **yunagmi*, op. the conj. *yunāj-a-t* pass. *yujyātē* and *yugā-m* which are regular.

g for *j*. Skr. indic. *gám-a-ti* imper. *gántu* (beside regular Av. *jamaiti jantu*) after *gam-á-ti* i. e. **gpm-é-ti* etc. Skr. perf. mid. *ji-gy-ē* for **ji-jy-ē* after the act. *ji-gāy-a* from *ji-* 'conquer, win', rt. *gei-*.

§ 452. Prim. Ar. *gh*, *jh* = Indg. *gh*. *gh* remained in Skr., *jh* partly became *h*, and partly *j* (§ 480). In Iran. the two sounds fell entirely together with *g*, *j* = Indg. *g* (§ 449).

§ 453. Prim. Ar. *gh*. Skr. *gharmá-* Av. *gar'ma-* 'glowing heat': + Lat. *formu-s* etc., see § 423. Skr. *dīrghá-* Av. Gāp. *dar'ga-* O.Pers. *darga-* 'long': + Gr. *δολιχός* 'long' (§ 306 p. 243). Skr. *drōgha-s* 'a crafty damaging', O.Pers. *drauga-* 'untruth, lie': + O.Icel. *draugr* 'ghost' OHG. *triogan* OS. *bi-driogan* 'to deceive', rt. *dhreugh-*. Skr. *janəghā-* Av. *zanəga-* 'instep': Lith. *pra-žanga* 'transgression' + Goth. *gagga-* (nom. *gaggs*) 'path, way'. Skr. *ghn-ānti* 'they strike' *ghan-ā-* 'striking' (orig. f. **ghñ-ó-*, § 231) *ghā-ti-š* 'a blow' (orig. f. **ghñ-ti-s*): + Gr. *ἔπεφρονον* etc., see § 429 a. b.

Late Av. *γ* = Gāp. O.Pers. *g*, as *draoya-* = O.Pers. *drauga-* 'lie, untruth', see § 481.

Late Av. *v* = Gāp. *gv*. *drvant-* (read *druvant-*, see Bartholomae Handb. § 91 a) = Gāp. *drug-vant-* 'deceitful, cunning, bad', rt. *dhreugh-*, cp. Bartholomae Bezenb. Beitr. VII 187 f.

§ 454. Prim. Ar. *jh*. Skr. *hán-ti* Av. *jainti* 'strikes', conj. Skr. *hán-a-ti* Av. *jan-aiti*, orig. f. **ghen-ti*, **ghen-e-ti*, O.Pers. *a-jan-am* 'I struck' orig. f. **e-ghen-ym* (Skr. perf. *ja-ghán-a* 'he struck' orig. f. **ghe-ghón-e*, § 480), rt. *ghen-*, see § 453. Skr. *raháyati* Av. *renjayēti* 'he hastens' orig. f. **lonəgh-éyeti*: Gr. *ἔλαφρός* etc., see §§ 429 a. c. 444 e. Skr. *drúh-as*, Av. Gāp. *druj-ō* pl. 'fiends' orig. f. **dhrugh-es*, part. Skr. *drúh-yant-* Av. Gāp. *drujyant-* 'injuring craftily', O.Pers. indic. *dūrūjīyāmīy* (read *durujyāmi*; on the orthog. cp. pp. 25. 116), orig. f. 3. sg. pres. **dhrugh-īe-ti*.

Late Av. *ž*. *snæžaiti* 'it snows' = Gr. *νείπει*, rt. *sneigh-*, see § 423. Cp. §§ 478. 481.

Rem. Through new formations Ar. *jh* for *gh* and vice versa. Cp. §§ 448 rem. 451 rem. and 429 rem 1.

jh for *gh*. Skr. *hatá-* Av. O.Pers. *jata-* 'struck' for Skr. **ghatá-* Iran. **gata-* = Gr. *πατό-*, Indg. **ghñ-tó-*, likewise Skr. *hanyátē* Av. *jan-yetē* 'is struck' for Skr. **ghanyatē* Av. **ganyetē*, Indg. **ghñ-īe-tai*, cp. O.Bulg. *žinjā* (§ 229). Skr. nom. sg. *drōha-s* beside regular *drōgha-s*

'craft, malevolence', Indg. **dhrougho-s*; Av. 3. pl. *druženti* for regular **druyenti* (orig. f. **dhrough-o-nti*) after forms like *družaiti* (orig. f. **dhru-ghe-ti*).

gh for *jh*. Skr. superl. *drāghiṣṭha-* beside regular Av. *drājišta-*, to positive Skr. *dirghá-s* 'long', see § 453.

Armenian.

§ 455. Indg. *q*.

k, *k̄*. *akn* (gen. *akan*) 'eye, hole, louver': Lith. *akl-s* 'eye' + Gr. ὄμμα 'eye' ὀπή 'louver', see § 427 *a*. *ju-k-n* 'fish' with suffix *-qo-*, § 419. *lk-ane-m* 'I leave': Gr. λιμπάνω λείπω etc., see § 427 *a*.

g after a nasal or liquid. *hing* (gen. *hng-i-ç*) 'five': Skr. *pīñca* etc., see § 419. *argel* 'hindrance' *argel-u-m* 'I check, keep off': + Gr. ἀρξέω 'I ward off', Lat. *arceō*. *gail* (gen. *gailoy*) 'wolf' probably from **galjō-* and this from **galgo-* = Skr. *vyka-s* O.Bulg. *vlükü*; *g-* = *u-* § 162, *-al-* = *-l-* § 291. 1.

č fr. *k* before original *e-* and *i-*vowels (Hübschmann Ztschr. d. deutsch. morgenl. Ges. XXXV 172 f. Armen. St. I 66. 79). *ač-k̄* pl. (*i*-stem) 'eyes', cp. Gr. ὄσσε du. (§ 427 *d*. § 489), Lith. *akl-s* 'eye'. *čor-k̄* (gen. *čor-i-ç*) 'four' fr. **qetūōr-* or **qetūr-* (cp. §§ 483. 602): Skr. *catvār-as* etc., see § 419. *ču* 'a breaking up': Skr. *cyāv-a-tē* etc., see § 448.

§ 456. Indg. *g*. *kin* (gen. *kn-oj*) 'woman': O.Bulg. *žena* etc., see § 437 *a*. *ker* (gen. *keroy*) 'food, meat', aor. *keri* 'I ate': Skr. *girāmi* etc., see § 428 *a*. *kov* (gen. *kovu*) 'cow': Skr. *gāu-ṣ* etc., see § 428 *a*. Aor. *e-kn* 'he came' orig. f. **e-gem-t*: Skr. *ā-gan* etc., see § 421. *erek* 'evening': Skr. *rājas-* etc., see § 621.

§ 457. Indg. *gh*. *gan* (gen. *gani*) 'a beating, flogging', rt. *ghen-* 'to strike' (§ 429 *a*), probably to the rt. form *ghyn-*, like Skr. *ghan-ā-* 'killing' (§§ 232. 454). *mēg* (gen. *migi*) 'fog': Skr. *mēghá-s* 'cloud', Alban. *miégulë* 'fog', O.Bulg. *mīgla* 'fog'. *durn* (gen. *drgan*) 'potter's wheel': Gr. τροχός etc., see § 439.

j initially and *ž* medially from *g* before original *e-* and *i-*vowels (Hübschmann Ztschr. d. deutsch. morgenl. Ges. XXXV 173, Armen. Stud. I 66. 71. 79). *jerm* 'warm' *jer* 'warmth,

good weather': Gr. *θερμός* *θερός* etc., see §§ 423. 429 *b. iž* (gen. *iži*) 'viper': Skr. *āhi-ś* Av. *aži-ś* 'snake, dragon'.

Albanian.

§ 458. Indg. *g*. *krimb-i krūm* 'worm': Skr. *kṛmi-ś* etc., see § 436. *piëk* 'I roast, bake': Skr. *pácāmi* etc., see §§ 427 *a*. 431 *a. gāk* 'blood': Lith. *sakaĩ* pl. 'resin' O.Bulg. *sokŭ* 'juice'. *pik* 'I make bitter, salt': Lith. *pikta-s* 'angry, bad', Pruss. *po-paika* 'he deceives' + Gr. *πυρό-ς* 'sharp, keen, piercing, passionate, harsh' O.Ir. *oech* 'enemy', Goth. *fáih* 'a wronging, deception' OHG. *gi-fēh* 'hostile'.

§ 459. Indg. *g*. *gur* 'rock, stone': Skr. *giri-ś* 'mountain', Lith. *gìria gìre* 'forest' O.Bulg. *gora* 'mountain'. *ǵišt* 'finger': Skr. *an̐guṣṭha-s*, see § 450. *l'ig-u* 'bad, lean': Lith. *ligà* 'illness' + Gr. *ὀλίγο-ς* 'little'.

§ 460. Indg. *gh*. *ǵendem* 'am found': O.Bulg. *gadaǵa* etc., see § 425. *šteg-u* 'entrance': Skr. *stigh-nu-tē* etc., see § 422. *diek* (*dieg-*) 'I burn': Lith. *degù* 'I burn' etc., see § 439.

Baltic-Slavonic.

§ 461. Indg. *q*, *g*, *gh* were *k* and *g* (the latter = *g* and *gh*) in the period of the Balt.-Slav. primitive community.

These sounds remained in general unchanged in Lith.

In prim. Slavonic *k*, *g* became *č*, *dž* before the prim. Indg. sonantal *e*- and *i*-vowels as well as before *ĩ*+nas. and *ĩ*+liq. as continuation of Indg. nas. and liq. sonans (§§ 248. 302) and *kĩ*, *gĩ* likewise became *č*, *dž*. After the completion of this process, but still in prim. Slavonic, *oĩ* (= Indg. *oĩ*, *ai*) became *č*, and this new palatal vowel now changed preceding *k*, *g* into *c*, *dz*; contemporaneous with the latter change was the transition of the then newly arisen *kĩ*, *gĩ* into *c*, *dz*. Cp. § 84 pp. 81 f., § 147 p. 133. Further *kt* became *tχ* and *ks* *χ* (*ch*) in prim. Slav.

§ 462. Prim. Balt.-Slav. *k* = Indg. *q*.

Lith. *kà-s* 'who?' *katrà-s* 'which of two?', O.Bulg. *lŭ-to* 'who?' *ko-toryjŭ* 'which': Skr. *ká-s* etc., see § 419. Lith. *kārta-s*

O.Bulg. *kratŭ* (fr. **kortŭ*, see § 281) 'time': Skr. *sa-kṛt* 'once' Lith. *āt-lėka-s* O.Bulg. *otŭ-lėkŭ* 'remnant, rest': + Gr. *λοιπό-ς* etc., see § 427 *a*. Lith. *velkŭ* O.Bulg. *vlėka* 'I draw, drag': Gr. *ἔλκω* 'I draw' (cp. § 164 rem.). Lith. *kraũja-s* O.Bulg. *krŭv-ŭ* 'blood': Skr. *kraviṣ-* etc., see § 418.

Prim. Slav. *č = k* (§ 461). O.Bulg. *četyrije* Lith. *keturi* 'four': Skr. *catvār-as* etc., see § 419. Voc. sg. O.Bulg. *vlŭče* Lith. *vilkė* to nom. *vlŭkŭ* *vilka-s* 'wolf': Skr. *vṛka-s* etc., see §§ 427 *c*. 444 *a*. 455. O.Bulg. *pečetŭ* 'cooks' (1. sg. *peka*) = Skr. *pācati* Lat. *coquit*, Indg. **pegeti*. *čara* 'incantatio' fr. **kěra* (§ 76): to Lith. *kerėti* 'to enchant'. *čapŭ* 'bee' fr. **képŭ* (§ 76), probably to Gr. *κηφήν* 'a drone'. *čŭ-to* 'what?': Skr. *ci-d* etc., see § 427 *b*. *črŭnŭ* Pruss. *kīrsna-* 'black': Skr. *kṛṣṇá-* 'black', Indg. **grsno-* (cp. § 302 rem. 1). Prim. Slav. *č = kŭ*. *pri-tŭča* 'likeness' fr. **tŭk-ja*. Cp. § 147 p. 133.

Prim. Slav. *c = k* (§ 461). *cěna* 'price, honour' (Lith. *kaina* according to Mikuckij): Av. *kaēna-* etc., see § 427 *a*. Loc. pl. *vlŭčėchŭ* (*vlŭkŭ* 'wolf') = Skr. *vṛkēṣu*, cp. **ulgoi-su*, cp. Gr. Hom. *λύχοι-σι*. Prim. Slav. *c = kŭ*. *junŭčŭ* 'young bullock' fr. **iŭnikŭ*. Cp. § 84 p. 81 f., § 147 p. 134.

This same change of *k* to *c* was repeated in the combination *ky* before palatal vowels in the course of the individual dialects (cp. § 427 *b*). O.Bulg. indic. *cvŭta* inf. *cvisti* 'to blossom', O.Croatian *cvasti* (= **cvŭsti*, a new formation after the indic. *cvātēm*), Little Russ. *cvysty* Great Russ. *cvěsti* (*č* transferred from *cvětŭ*?) beside Low Sorabian *kviśc* Czech *kvísti* O.Pol. *kwiśc* 'to blossom', prim. Slav. **kyŭstŭ*. Cp. (*d*)*zvěřŭ* § 464.

Prim. Slav. *tχ' = kt* through the intermediate stage *χ't*. This sound-group thus fell together with Indg. *tŭ* and had the same further development as the latter. *χ't* became *št* in the Bulgarian branch. O.Bulg. *noštŭ*: Lith. *nakti-s* 'night', Skr. *nākti-ṣ*. *vlėsti* 'to draw' sup. *vlėštŭ*, to indic. *vlėka*, cp. Lith. inf. *vilkti*. *tešti* 'to run', to indic. *teką*. *vrėsti* 'to throw' to indic. *vrėga*. Cp. § 147 p. 132 f.

Rem. That the stage *χ't* lay between *kt* and *tχ'*, is confirmed by the inf. *vrėsti* 'to thresh' (indic. *vrėch-a* = **urs-ā-m*, rt. *urs-*, cp. O.Lat. *rorrō*

'I draw through, sweep' = **χs-ó*), since it must be traced back to prim. Slav. **uerχ'ti*; it is uncertain whether *χ'* had arisen regularly in this form or whether it had been transferred from the indic. Serv. *vrījēci vrīci* beside O.Bulg. *vrěšti* shows the falling together with original *kt* and *tī*. Cp. § 588 rem. 1.

Prim. Slav. *χ* (*ch*) = *ks* (except before *t*, see 2. pl. *těste* § 545) through the intermediate stage *χχ*. We leave it undecided whether the course was *ks-kχ-χχ* or *ks-χs-χχ*. *těchū* 'I ran', orig. f. **tēq-s-o-m*, pres. *tekq. běchū* 'I save, run away with' orig. f. **bhēq-s-o-m*, inf. *bēgati*, rt. *bheg-* (§ 463). On the change of the *ch* to *š* in the 3. pl. *těšę* *běšę* cp. § 588, 1.

ks remained in Baltic. Lith. fut. *ūksiu*, to *lēkū* 'I leave' (cp. Skr. *rēkṣyāmi*, Gr. *λείπω*), *bēksiu*, to *bēgu* 'I run, flee'. Pruss. *lauxnos* pl. 'constellations': Av. *raoxšna-* 'shining'. Hence Indg. *qs* and *ks* did not fall together in Baltic-Slavonic, see § 414.

§ 463. Prim. Balt.-Slav. *g* = Indg. *g*.

Lith. *gīria* 'forest', O.Bulg. *gora* 'mountain': Skr. *gīrī-ś* etc., see § 459. Lett. *gāws* 'cow', O.Bulg. *govędo* 'bullock': Skr. *gāū-ś* etc., see § 428 a. Lith. *bēgu* 'I run, flee' *boginū* 'I save, run away with something', O.Bulg. *bēgū* 'flight': + Gr. *φέβομαι* 'I flee' *φόβο-ς* 'flight, fear', rt. *bheg-*.

Prim. Slav. *dž* = *g* (§ 461). Thence O.Bulg. *ž. žeravī*, Lith. *gėrvė* 'crane': Gr. *γέρανο-ς* etc., see § 420. 3. sg. *vrīžetī* (beside 1. sg. *vrīgq* 'I throw'), cp. Goth. 3. sg. *vairpiþ* 'throws', rt. *uerg-*, § 444 a. Voc. *bože*, to nom. *bogū* 'god' adj. *božiskū* 'divine': Skr. *bhāga-s* etc., see § 450. *žaba* 'frog' fr. **gēba* (§ 76) Pruss. *gabawo* 'toad': OMG. *quappa* Du. *kwab* 'eel-pout'. *po-žarū* 'incendium' fr. **po-gērū* (§ 76) beside *žera-tūkū* 'heap of coals' *gorēti* 'to burn': Lith. *gāra-s* 'vapour', Skr. *gharmā-s* 'glowing fire'. *živū* Lith. *gýva-s* 'alive': Skr. *jīvá-s* etc., see § 421. *žrīny* 'mill' Lith. *gīrnos* pl. 'mill-stones, mill' (§ 303): + Goth. *asiļu-quatrmu-s*, see § 442. *žīraq* 'I swallow': Skr. *gīrdmi gīlāmi*, Indg. **ggr-ó* (§ 305). Prim. Slav. *dž* = *gi*. *ostežu* 'chlamys' fr. **o-steg-īa* beside *ostegū* 'vestis': Lith. *stōga-s*, Lat. *tegō toga* etc., see § 420. Cp. § 147 p. 133.

Prim. Slav. *dz* = *g* (§ 461). Still *dz* in the oldest O.Bulg. monuments, in the later almost exclusively *z* (Miklosich Vergl. Gramm. I² 251 ff.). Loc. pl. *bo(d)zěchŭ* (*bogŭ* 'god') = Skr. *bhāgēṣu* cpf. **bhagoṣu*. Opt. 2. pl. *vrī(d)zěte* (*vrīgā* 'I throw') orig. f. **urgōite*, cp. Goth. *vatrpáip̃*. Sure examples seem to be wanting for prim. Slav. *dz* = *gi* = Indg. *gi*. Cp. § 84 p. 81 f., § 147. p. 133.

§ 464. Prim. Balt.-Slav. *g* = Indg. *gh*.

Lith. *geniū* 'I chop off (branches)' *genū* 'I drive (cattle)', *ganaū* 'I tend (cattle)', O.Bulg. *iz-gonŭ* 'a driving away, chasing': Skr. *hán-ti* 'strikes' etc., see § 429 a. Lith. *grúda-s* 'corn' *grúdžiu* 'I pound', O.Bulg. *gruda* 'clod': + OHG. *gruzzi* O.Icel. *graut* 'grit' OHG. *grioz* OS. *griot* 'sand, gravel', rt. *ghreyd*. O.Bulg. *gostŭ* 'guest, companion, friend': + Lat. *hosti-s* Goth. *gasts*, see § 422. Lith. *snėga-s* O.Bulg. *snėgŭ* 'snow': + Gr. *vípa* etc., see § 423. Lith. *angì-s* 'snake', O.Bulg. *agorištŭ* 'eel': Skr. *áhi-ṣ* etc., see § 433 a. O.Bulg. *lga* 'I lie down', adj. *sq-logŭ* 'consors tori' + Gr. *λέχος* *ǎ-loxo-s* etc., see § 425.

Prim. Slav. *dž* = *g* (§ 461). Thence O.Bulg. *ž*. *žinja* 'I cut (fruit), reap' inf. *žiti*, to Lith. *geniū* (s. above), cp. Skr. *hanyátē* (§ 454 rem.). *sněžinŭ* 'snowy', to *snėgŭ*, s. above. *sq-lože* voc. to *sqlogŭ*, s. above. Prim. Slav. *dž* = *gi*. *lŭžŭ* 'lying, false' fr. **lŭg-ŭžŭ*, to *lŭgati* 'to lie': OHG. *liogan* 'to lie', rt. *lŭgh-lože* n. 'couch, bed' fr. **log-ŭe*, to *lga*, s. above. Cp. § 147 p. 133.

Prim. Slav. *dz* = *g* (§ 461), O.Bulg. *dz*, later *z* (§ 463). (*d*)*zěllŭ* 'vehemens': Lith. *gailŭ-s* 'passionate', OHG. *geil* 'extravagant, petulant, wanton'. *sně(d)zi* pl. to *snėgŭ* 'snow', orig. f. **snoighoi*. *l(d)zěte* 2. pl. opt. to *lga*. Prim. Slav. *dz* = *gi*. *stŭ(d)za* 'way' fr. **stŭg-ŭa*, to *stigna* 'I come from': Skr. *stighnutē* etc., see § 422. Cp. § 84 p. 81 f., § 147 p. 133.

The same change of *g* to *tz* was repeated in the combination *gy* before palatal vowels in the course of the individual dialects. O.Bulg. (*d*)*zvěrŭ* 'animal, wild animal' fr. prim. Slav. **gyěrŭ*: + Gr. *θήρ* Lat. *fera*, see § 429 b. Cp. *cvisti* § 462.

§ 465. Prim. Slav. *sk*, *zg* before palatal vowels and before *i*. In the period of prim. Slav., in which *k*, *g* became

tš (*č*), *dž*; *sk*, *zg* correspondingly passed into *stš*, *zdž*, hence *štš*, *ždž*, further O.Bulg. *št žd*. Cp. § 147 p. 133 f. Suffix *-go-* seems to be contained in O.Bulg. *-ište-* fr. *isk-je-*, a further formation of *-isko-*, e. g. *ognište* n. 'hearth, fire-side' (cp. the primary form Pol. *ognisko* n.). *moždanŭ* 'having marrow, marrowy' fr. **mozgěnŭ* (cp. *běžati* 'to flee' fr. **běgěti*, § 76) from *mozgŭ* 'marrow'; whether we have here Indg. *zg* or *zgh*, is doubtful, see § 450.

Retrospect of the history of the velar explosives.

§ 466. Words containing Indg. velars show these partly with and partly without labialisation in Greek, Ital., Kelt. and Germ. The *ɥ*-afterclap, brought along from prehistoric times, could disappear in the separate languages by certain fixed sound-laws. But we thought that such a disappearance might only be assumed in such forms, as had parallels which were etymologically related, and which actually occurred with labialisation either in the same language or in another of the *ɥ*-languages, e. g. in Goth. *kairu-s* 'heavy' (§ 444*b*). We thought that it must be left undecided whether labialisation was ever present in those words, which certainly had an Indg. velar, but do not appear in any of the *ɥ*-languages with labialisation. The dropping of *ɥ* can be assumed in some of these words, without the sound-laws of the separate languages standing in the way, thus e. g. in Gr. *κῦτρος* Lat. *cuti-s* OHG. *hūt* 'skin, hide' (cp. Pruss. *keuto* 'skin', Lith. *kiautai* pl. 'corn-hulls, -husks') from the fact that *ɥ* disappeared before *u* in each of these languages (§§ 427*c*. 428*c*. 429*c*. 431*b*. 444*b*). In other cases the known sound-laws of the separate languages do not furnish any positive support for the assumption of the disappearance of *ɥ*. But sound-laws may have operated in prehistoric times, which brought about the loss of *ɥ* (e. g. perhaps before Indg. *a*, *a*, as in Gr. *καρκίρος* : Skr. *karkaṭa-s*, and if *u* or *ɥ* directly preceded the velar, as in Gr. *ζυγό-ν* : Skr. *yugá-m*?) and the activity of which may have become so concealed by the later development that it is no longer possible for us to fix them.

Of late years the question has several times been raised

(most recently by Bersu p. 4 ff.) as to whether the words, in which the velars appear in Greek etc. with labialisation, were also once spoken in Ar., Armen., Alban. and Baltic-Slavonic with labialised *q*, *g*, *gh*, or whether the labialisation was an innovation of the *u*-languages — ultimately an innovation which took place in one portion of the prim. Indg. language-terrain. But nothing has hitherto been adduced which admits of a sure decision being formed either on the one side or the other. At all events *u* may equally well have disappeared from those languages in which labialisation does not occur, as it did e. g. in Irish (*cethir* beside O.Cymr. *petguar* 'four') and in French (*quatre* pronounce *katr* from Lat. *quattuor*).

Interchange of the palatal and velar explosives.

§ 467. In Aryan, Armenian and Baltic-Slavonic we occasionally find a guttural explosive or its regular successor, where we should expect the descendant of an Indg. palatal explosive, i. e. spirant or affricata, and conversely. Examples from the first and last named language-groups, have been collected by J. Schmidt in Kuhn's *Ztschr.* XXV 114 ff. 125 ff. A final answer to the question, how this interchange is to be explained, must be left for the future. For the present the following seems to me probable.

1. In one portion of the cases the mixing of the two classes of consonants was caused by form-transference.

This is seen clearest of all in Sanskrit, where certain sounds, which were originally different, regularly fell together: *kṣ* = *qs* and *ks*, *j* = *g* and *ḡ*, *h* = *gh* and *ḡh*.

Thus *bhiṣakti* 'he heals' *bhiṣáktama-* superl. from *bhiṣáj-* 'healing', with *kt* instead of *ṣt* on account of 2. sg. *bhiṣákṣi* nom. sg. *bhiṣák* (fr. **bhiṣakṣ*, § 647, 7) loc. pl. *bhiṣákṣu*, cp. Av. *baēšaz-a-* = Skr. *bhēṣaj-á-* 'medicine'. After the analogy of *tyāgá-* 'abandonment, resignation' beside *tyájatē* (rt. *tjeg-*) etc. was formed *yāga-* for older *yájá-* 'an offering' beside *yájatē* (rt. *īāḡ-*), correspondingly after *ni-dāghá-s* 'heat' beside *dah-* (rt. *dhegh-*) etc., *sq-dēghá-s* for older *sq-dēh́á-s* 'a cementing to-

gether' (rt. *dheigh-*). With misplaced *g* also *bhārga-s* 'splendour' (cp. Av. *brāzaiti* 'beams, radiates'), *nir-mārgá-* 'a stripping off' (cp. indic. 3. sg. *mārṣṭi*), *sargá-* 'gutter' (cp. part. *syṣṭá-*). Further part. *digdhá-* 'besmeared' for regular **dīḍha-*.

The converse transference occurred less often. Thus *drōḍhar-* for and beside *drōgdhar-* part. fut. from *druh-* 'injure', rt. *dhreugh-*¹⁾.

In Armenian the *st* in *dustr* 'daughter', which does not agree with the root-final velar of the other languages²⁾, may have come into existence through the influence of *ustr* 'son' (etymologically unexplained), with which according to Hübschmann Arm. St. I 47 it is mostly used.

2. Where *k* and *g* appear in Baltic-Slavonic in place of sibilants, they are due to a borrowing from the circle of languages with guttural explosives; this borrowing may partly be dated back to the period of the Indg. prim. community, if by § 380 we already ascribe to this the difference of articulation, which permits the Indg. languages to be divided into two great groups. Thus O.Bulg. *svekrū* 'socer', *svekry* 'socrus' beside Lith. *szeszura-s* etc., which point to Indg. **suekuro-* **suekrū-* (§ 381), O.Bulg. *gaṣṣ* beside Lith. *žąsi-s* etc., Lith. *klausau* 'I obey' beside O.Bulg. *sluchū* 'hearing, obedient' Skr. *śróṣamāṇa-s* 'gratifying', Pruss. *pecku* Lith. *pėku-s* 'cattle' beside Skr. *páṣu* etc., Lith. *smakrà* 'chin' beside Skr. *śmāśru-* 'moustache' (to which O.Ir. *smech* 'chin'), Lith. *gařda-s* 'hurdle' O.Bulg. *gradū* 'inclosure, town', beside Lith. *žarėdi-s* 'pasture-ground' (cp. § 389).

3. In one portion of the cases, which are generally classed under this category, we have different roots. Thus e. g. we separate *gnā-* **genā-* 'wife' (Skr. *gnā-* etc., s. §§ 428 a. 437 a) from rt. **gen-* 'gignero'; Skr. *áhi-ṣ* 'snake' Av. *aži-š* etc. (§ 433 a) from rt. *añgh-* 'to lace, string'; Skr. *mēghá-* 'cloud' from *mēha-* Av. *maēza-* 'urine'. Such like roots, which are

1) With these Skr. new formations cp. § 480 rem. 4.

2) The *h* in Skr. *duhitār-* is the regular representative of prim. Ar. *jh* = Indg. *gh* by § 445, as must be remarked because of J. Schmidt, Kuhn's Ztschr. XXV 68. 116. 122.

similar in sound and meaning, but nevertheless not related etymologically, occur indeed often enough elsewhere, as e. g. Skr. *skambh-* and *stambh-* 'fasten, support', *uegh-* and *uedh-* 'lead'.

Rem. The manner in which J. Schmidt (in the article quoted above) attempts to explain the interchange of the two classes of consonants, is in my opinion by no means convincing.

B. THE EXPLOSIVES AFTER THEIR FORM OF ARTICULATION.

Primitive Indg. period.

§ 468. The Indg. prim. language had, as we have seen in § 322, four forms of articulation: *tenuēs*, voiced *mediae*, aspirated *tenuēs* and aspirated voiced *mediae*, e. g. *t*, *d*, *th*, *dh*. Examples for the two first and for the last class have been given in §§ 324—326. 348—350. 381—383. 418—423.

We have not yet given examples for the *tenuēs aspiratae* in section A. And, owing to their comparatively small number and the peculiar difficulties with which the question of their regular representation in the various languages is surrounded, it seems appropriate not to treat this form of articulation in this section either, in each of the separate language-groups, but to treat it collectively at the end (§ 553), in order that everything, which belongs here from the various languages, may be brought together under one head. Before then however we shall however have to discuss the history of the prim. Ar. *tenuēs asp.* in § 475.

§ 469. Several of the changes in the form of articulation, which are exhibited by the Indg. explosives and which in many cases are regarded as having taken place within each development, had in all probability already arisen in the period of the Indg. prim. community. Eight cases are to be taken into consideration.

1. The change of *mediae* into *tenuēs* before voiceless explosives and spirants. Indg. **juqtó-* 'yoked' i. e. **jug+to-* from rt. *jeug-*: Skr. *yuktá-* Gr. ζευχό-ς Lat. *jūctus* Lith. *jùnkta-s*. Indg. **petsú* loc. pl. fr. **ped-* 'foot': Skr. *patsú* Gr. ποσὶ ποσί.

2. The change of *tenuēs* into *mediae* before voiced explosives and spirants. Indg. *-bd-* weakest form of *ped-*: Skr. *upa-bd-á-* 'a pounding, trampling' Gr. *ἐπι-βδ-αι* 'day after the feast' (§ 325). We assume **dṛdbhis*, **uigbhis*, **rgbhis* as the Indg. prim. forms for the instr. pl. Skr. *dadbhiṣ* (*dat-* *dant-* 'tooth'), *viḍbhiṣ* (*viṣ-* 'clan, village community', cp. § 404, 3), *ṛghbhiṣ* (*rc-* 'hymn'). This assimilation may also have extended itself to double consonants, as Skr. instr. pl. *nádbhiṣ* (*napt-* *napāt-* 'offspring') fr. **nabdbhiṣ*, Indg. **nebdbhis*. Cp. also Av. instr. pl. *azd-biṣ* fr. *ast-* 'bone': Gr. *ἄστ'ο-ν* and Indg. *zd* from *sd* in **z-dhi* 'be' imper. fr. rt. *es-*, **se-zd-* perf. st. from rt. *sed-* and similar forms, § 589, 1.

3. The side by side existence of Gr. *ἐβδομο-ς* and O.Bulg. *sedmyjǎ* 'septimus' (§ 547 rem. 2) permits our assuming that in Indg. there stood beside **septm̥* the ordinal **sepdmó-* or **sebdmó-*. In that case Gr. *ἑβδοο-ς* would be a special Greek transformation of *ὄκτ-* after the analogy of *ἐβδ-*. Similarly Osthoff Zur Gesch. d. Perf. 321.

4. *t* before *t* *th* and *d* before *d* *dh*. Geminated explosives were probably not spoken here, but affricata + explosive. We write *tʰt(h)* and *dʰd(h)* but at the same time readily admit that it might perhaps have been more correct to have written *tṭt(h)* and *dḍd(h)*. For the literature on this point see Osthoff Zur Gesch. d. Perf. 560¹⁾. E. g. **setʰtó-* (part. fr. rt. *sed-* 'sit'): Skr. *sattá-* Av. *hasta-* Lat. *ob-sessu-s*; **dedʰdhí* (that is, **de-d+dhi*, 2. sg. imper. of the reduplicated pres. of *dō-* 'give'): Skr. *dēhi* Av. *daṛdi*.

5. Aspirates probably lost their aspiration before aspirates. We regard e. g. **iudbhis* as the Indg. prim. form of Skr. instr. pl. *yudbhiṣ* (*yudh-* 'fight, battle'). If Gr. *κύσθο-ς* 'a hollow, pudenda muliebria', Lat. *custōs*, Goth. *huzd* 'treasure', which

1) The objection raised by Bartholomae in his recent work Ar. Forsch. II 79 against what we have stated above for the Indg. prim. language, is not valid. If *ks* became *k* before explosives, it by no means follows that the affricata *ts* (*tʰ*) must under the same conditions have become *t*. *kx*, *pf*, not *ks*, *ps* correspond to *ts*.

belong to rt. *keydh-* in Gr. *κρύβειν* Ags. *hȳdan* 'to hide', were an extension of this rt. by means of the 'root-determinative' *dh-* as we assume in §§ 494. 507. 536., then **kud^hdh-* (s. above 4) was probably spoken in prim. Indg.

6. How was the combination — which must be presupposed etymologically — *media* asp. + *t* or *s* spoken at the time immediately preceding the disintegration of the Indg. prim. community? What was e. g. the Indg. prim. form of Av. *dug^hdar-* Lith. *dukter-* 'daughter', which, on etymological principles, would have to be put down as **dhughter-*? A positive answer has not yet been found. We leave out the question in our exposition of the history of the Indg. forms of articulation in the separate languages and discuss it at the end in § 552. In the section on Aryan § 482 we shall however previously treat the special history of *media* + *media* asp., which can be put down with certainty as the prim. Ar. order of articulation.

7. Change between *tenuis* and *media* at the end of roots, e. g. *sqap-* : *sqab-* in Gr. *σκαπάνη* 'spade', O.Lat. *scaprēs* : Lat. *scabō*, Lith. *skabū-s* 'cutting' (§ 345); *paḱ-* : *paḡ-* in Lat. *pāx* *pācis* Skr. *pāśa-s* 'loop, cord' : Gr. *πήγνυμι* 'I fasten', Lat. *pangō*; (*s*)*peḱ-* : (*s*)*peḡ-* in Skr. *pāśyāmi* 'I see', Lat. *-spicio*, OHG. *spehōn* 'to spy' *spāhi* 'prudent, wise' : O.Icel. *spakr* 'prudent, sensible', O.Bulg. *paziti* 'attendere', refl. with *se* 'cavere'. The *tenuis* is probably rightly considered as the older articulation. The circumstances, under which this sound-modification made its appearance, still remain undetermined. Cp. p. 188 f.

Probably here also belong irregularities in the form of articulation, which occur in other positions than at the end of roots, e. g. Skr. *daśat-* : Gr. *δεκαδ-* 'decade' (cp. § 238).

8. Change between *media* asp. and *media*. *stembh-* : *stemb-* in Skr. *stabhnōmi* 'I fasten' prop', perf. *tastāmbha*, Gr. *ἀ-στέμφης* 'unpressed' *στέμφυλο-ν* 'a grape or olive already pressed' : Gr. *στέμβω* 'I shake, tread on', OHG. *stampfōn* 'to stamp' *stumpf* 'stump' (Lith. *stambra-s* 'trunk, stem', *stiṁbra-s* 'stump of the tail, stump' may belong to either root-form). *bhudh-* : *bhud-* (weak rt. forms) in Skr. *budhnā-* 'bottom', Gr. *πυθμῖν* 'bottom,

end of a root': Gr. *πύνθαξ* 'bottom' (with *π-* for *φ-*, like *πίστις* for **φίστις* etc., see § 496), Ags. *botm* O.Icel. *botn* 'bottom' (Lat. *fundu-s* and O.Ir. *bond bonn* 'solea' are ambiguous). *megh-* : *meg-* in Skr. *mahān* 'great' : Skr. *majmán-* 'greatness', Gr. *μέγας* Goth. *mikils* 'great'. Skr. *ahám* : Gr. *ἐγώ*, Lat. *ego* Goth. *ik* 'I'. The *media asp.* is possibly the older sound. The circumstances, under which the modification made its appearance, are also here undetermined. In most of the cases a nasal is in the vicinity. Cp. Arkiv for nordisk Filologi I 176 rem.

Rem. J. von Fierlinger Kuhn's Ztschr. XXVII 478, following up J. Schmidt's theory, conjectures that in those cases where it is a question of *gh* : *g*, 'the sound was neither *gʰh* [*gh*] nor *gʰ* [*g*] in the parent language, but a voiced palatal spirant' *γʰ*. So long as a more special (urgently needed) investigation into the whole question of the change in the form of articulation in the Indg. prim. period is still wanting, it seems to me more prudent not to separate the change *gh* : *g* from the cases *bh* : *b* and *dh* : *d*. With these it is hardly possible to start from a spirant, which is homogeneous with the '*γʰ*'.

Aryan.

§ 470. The difference between the Indg. forms of articulation was still preserved in the period of the Aryan prim. community.

The palatals *k̄*, *ḡ*, *gh̄* appeared as *ś*-sounds: *ś̄*, *ṣ̄*, *ṣ̄h* (§ 396).

Indg. *dʰd(h)* (§ 469, 4) probably then became *zd(h)*, e. g. **dazdhi* = Indg. **dedʰdhi* 'give' imper., and thus fell entirely together with Indg. *zd(h)* (§§ 590. 591). See § 476.

The order med. asp. + *t*, *s* — which is etymologically to be postulated — was represented by med. (or voiced spirant) + *dh*, *zh* (§§ 469, 6. 552) : *bdh*, *dʰdh*, *gdh*, *ṣ̄dh* and *bzh*, *dzh*, *gṣ̄h*, *ṣ̄ṣ̄h*. For the further history of these combinations in Aryan see § 482.

The Sanskrit separate development left the Indg. forms of articulation separate.

In Iranian the *mediae asp.* became *mediae* and *ṣ̄h* became *ṣ̄*. These sounds thus fell entirely together with the Indg. *mediae*.

§ 471. *Tenuēs*. Prim. Ar. *p*, *t*, *k* *c*, *ś* = Indg. *p*, *t*, *g*, *k̐*.

Skr. Av. O.Pers. *pat-* 'fall, fly', Indg. **pet-*. §§ 327. 351.

Skr. Av. O.Pers. interrog. stem *ka-*, Indg. *go-*. Skr. Av. *ca* O.Pers. *cā* 'and', Indg. **qe*. §§ 445—448.

Skr. *āśva-* Av. O.Pers. *aspa-* 'horse', Indg. **ekyo-*. §§ 396—401.

k seems to have disappeared in the prim. Ar. period in Skr. *tūrya-* Av. *tūrya-* 'quartus' fr. **ktur-*, to Indg. **qetuer-* Skr. *catvār-as*, cp. Av. *ā-xtūrya-* 'every fourth time' (cp. § 646); so also *t* in **napt-su* Av. *naṣṣu* loc. pl. from Ar. *napat-* *napt-* 'offspring' (s. Osthoff Zur Gesch. d. Perf. 600).

§ 472. Further shiftings of the prim. Ar. form of articulation did not take place in Sanskrit.

Rem. In forms like *vagnú-* 'tone, sound' (*vak- vac-*), *ṛgmin-* 'praising' (*ark- arc-*), *śagmá-* 'wealthy, benevolent' (*śak-*), *vāgmin-* *vāgein-* 'eloquent' (*vāk- vāc-*) *g* had not regularly arisen from *k* (*-kn-*, *-km-*, *-kē-* remained, cp. *rēkṇas-* 'wealth, riches', *rukmd-* 'shining', *pakvā-* 'ripe') but was borrowed partly from other forms of the same roots as instr. *vāgbhiṣ*, *ṛgbhiṣ*, 2. sg. imper. *śagdht*, partly from forms of roots with original *g* (*g*) as *tigmá-* 'sharp' rt. (*s*)*tig-* (*śagmd-* to *śaktá-* like *tigmá* beside *tiṭtá-*). Similar occurrences in Gr. see §§ 486 rem. 495 rem.

§ 473. In Iranian *p*, *t*, *k*, *c* were only retained before vowels and after *s*, *ś*. Otherwise they became spirants before consonants. This change took place before *i*, *u*, after these consonantal vowels had become spirantal (§§ 127. 161).

1. Prim. Ar. *p*. Av. O.Pers. *fra-* 'before, fore': Skr. *pra-* Gr. *πρό*, Indg. **pro*. Av. *er̥zifya-* 'stretching itself, falcon': Skr. *ṛjipyá-* 'stretching itself, seizing on the wing', Armen. *arciv* 'eagle' (§§ 291, 1. 330). Av. *āfant-* 'aquosus' from prim. Ar. **ap-uant-* (§ 159 p. 143) to *ap-* (acc. *āpem* nom. *afš*) 'water': Skr. *ap-* *āp-* 'water'.

Av. *-pt-* beside *-fdr-* fr. *-ptr-* (2.) and beside Pers. *-ft-* is strange. *hapta* 'seven': Skr. *saptá*. *ker̥pta-* 'put in order, made right': *kl̥ptá-*. Prim. Iran. *-ft-* probably became *-pt-*, cp. O.Icel. *epter* fr. *efter* 'after' etc. (Noreen Aisl. Gramm. § 183).

2. Prim. Ar. *t*. Av. *ṭwam* O.Pers. *ṭwām* (*ṭw-* = *ṭv-*) 'thee': Skr. *tvām*. Av. *ṭyejah-* n. 'need, danger': Skr. *tyájas-*. Av. *miṭra-* 'contract': Skr. *mitrá-*. Av. *šyaoṭna-* 'deed, work': Skr. *cyāutná-*.

In O.Pers. *ṭr*, *ṭy* passed into *š*, *šy*. *ši-* 'three': Av. *pri-* Skr. *tri-* (§ 261). *hašiya-* (*-šiy-* = *-šy-*) 'true': Av. *haiṣya-*, Skr. *satyá-*.

In Av. *ṭr*, *ṭw* passed into *ḍr*, *ḍw* after *f* and *x* (voiceless spirants after the voiceless spirants *f x* became voiced). Acc. *fḍr-ō* 'patres' (cp. Gr. *θυγατερος*) beside dat. sg. *piṭrē* acc. sg. *ptarem*, cp. Skr. *pitr- pitúr-*. *vaxḍra-* 'word, speech': *vak-trá-* 'mouth'. *vaxḍwa-* 'word' fr. prim. Ar. **yak-tya-*. Cp. *ḍ* fr. *ṭ* = prim. Ar. *th* § 475.

Prim. Ar. Skr. *tk* = Av. *ṭk*. *aṭka-* 'dress': Skr. *átka-*. *ta-ṭk-uš-* weak st. of the part. perf. act. to *tacaiti* 'runs'.

Prim. Ar. *tc* (Skr. *cc*) = Av. *sc* O.Pers. *šc*. Av. *yas-ca* 'quod-que', also inexactly written *yaṭca* (according to the etymology: *yaṭ+ca*): Skr. *yác-ca*, prim. Ar. **iatca* Indg. **iotqe*, **iod qe*. O.Pers. *aniyaš-ciy* 'anything else': Skr. *anyác-cid* prim. Ar. **anyatcid*. Cp. Kelt. Germ. *sk* fr. *tk*, §§ 516. 527.

Prim. Ar. *ts* became *s* in Av. (O.Pers.) through the intermediate stage *ss*. Av. *masya-* 'fish': Skr. *mátsya-*. Av. Gāp. loc. pl. *drug-vasū* fr. *drug-vant-* 'lying, false', cp. Skr. *kéša-vatsu* fr. *kéša-vant-* 'having a mane'. Av. nom. sg. *a-mer'ta-tās* 'immortality' fr. **-tāt-s*, cp. acc. sg. *amer'tatāt-em*. Correspondingly Indg. *t't(h)* = prim. Ar. *tst(h)* (§ 469, 4) became *st* in Av. and O.Pers. Av. *ava-pasti-š* 'a falling down': Skr. *patṭi-š*, prim. Ar. **patsti-š*, Indg. **pet'ti-s*, rt. *pet-*. Av. *ašavastema-* superl. fr. *aša-vant-* 'pious, holy', cp. Skr. *-vat-tama-*. Av. *ustema-* 'utmost': Skr. *uttamá-*. Av. Gāp. 2. sg. perf. *vōistā* 'knowest': Skr. *vēththa* Gr. *οἶσθα*, Indg. **uoit'tha*, rt. *ueid-*. O.Pers. *a-yastar-* 'possessor', to Skr. *ā-yat-* 'attain, reach'.

Rem. 1. Observe that this Iran. *st* also appears after *i* and *u* and their diphthongs, as in *vista-* = Skr. *vittá-*, *vōistā* = Skr. *vēththa*, Gāp. *raostā* (3. sg. mid. from *raod-* 'grow up'), whereas Indg. *st* had become *št* after the same sounds. The transition of *is*, *us* into *iš*, *uš* was already completed and was closed, when *tst* became *st* in Iranian. See § 556, 1.

Rem. 2. Indg. *-st* and Indg. *-tst* remained separate in Av. also when final. The former appears as *-s* (after *a*-vowels), the latter as *-st*, e. g. 3. sg. imperf. *ās* 'erat': Skr. Ved. *ās* prim. Ar. **āst* Indg. **ēst* (Gr. Dor. *ī;*), 3. sg. imperf. *hišast* fr. rt. *sed* 'sit' fr. Indg. **si-setst*, that is, **si-sed + t*. Cp. Bartholomae Handb. §§ 139—141, Ar. Forsch. II 78 f.

3. Prim. Ar. *k*. Av. *yuxta-* 'yoked': Skr. *yuktá-*. Av. *suzra-* 'red' O.Pers. *puxra-* a proper name: Skr. *śuk-rá-* 'bright, white'. For further examples see § 447.

4. Prim. Ar. *c* was regular before no consonant except *i*. Av. *šy* O.Pers. *šy*. Av. *šyao-īna-* 'deed, work' O.Pers. *a-šiyav-am* (*-šiy-* = *-šy-*) 'I went, walked': Skr. *cyáv-a-tē* 'stirs, moves'. Cp. § 448.

§ 474. Prim. Ar. prim. Iran. non-final *t* with preceding spirantal *r* became *š* in Avestic, as *mašya* (*mašiya-*) = O.Pers. *martiya* Skr. Ved. *mártiya-* 'mortal being'. See §§ 260. 288. 353.

§ 475. The prim. Ar. tenues aspiratae. *ph*, *th*, *kh*, *ch* were not rare sounds in the period of the Ar. prim. community. It is by no means definitely settled that these sounds are to be traced back in every case to Indg. tenues asp. (§ 553). This form of articulation may partly have arisen in the prim. Ar. period from non-aspirate tenuis, e. g. Skr. *path-* 'path', *sthā-* 'stand'. It is certainly not clear by what laws this aspiration arose.

In the following §§ we shall discuss the history of the prim. Ar. ten. asp. without taking into consideration whether this form of articulation was old inherited or newly developed. From § 553 it is obvious in what cases we hold the ten. asp. for prim. Indg.

The only case in which the sounds underwent a change in Sanskrit, was when the following syllable began with an asp. or with *s* + asp. A tenuis then arose by dissimilation. *kumbhá-s* 'pot, mug' fr. **khumbha-s* = Av. *xumba-*. Perf. *cichēda* 'I cut off' fr. **chi-chēda* from prim. Ar. *skhajd-*. Cp. the dissimilation of the mediae asp. § 480.

Rem. 1. Forms like instr. pl. *khē-bhiṣ* from *kha-* 'opening in the body, mouth, ears etc.', *pathi-bhiṣ* from *pathi-* 'path' were forms made by analogy after the cases, in which there was no reason for dissimilation. Cp. § 480 rem. 1.

In Iranian the *tenuēs asp.* became spirants except after *s*, *š* and nasals, where they passed into *tenuēs*.

Av. *safa-* 'hoof' : Skr. *śaphá-*. Av. *paṣ-* O.Pers. *paṣi-* 'path' : Skr. *path-* *pathi-*. Av. *bara-ṣa* 'ye bear' : Skr. *bhára-ṭha*. Av. *haxa* 'companion, friend' O.Pers. *haxāmani-š* proper name : Skr. *sákha*. Av. st. form *haši-* 'companion, friend' (only in compounds as *hašid-biš-* 'friend tormenting') fr. prim. Ar. **sachi-*; Skr. *sakhi-* was formed after the analogy of *sákha* etc.

Av. *sparāmi* 'I push, jerk' : Skr. *sphurdāmi* (cp. § 290). Av. O.Pers. *stā-* 'stand' : Skr. *sthā-*. Av. Gāp. *vōistā* 'knowest' : Skr. *vēthā*. Av. *pantan-* 'path' : Skr. *pánthan-*, beside *paṣ-* : *path-*. Av. *skārayant-* 'leaping' (or 'letting leap') in the proper name *skārayaṣ-ṛaṣa-* : Skr. *skhālati* 'stumbles, makes a false step sticks fast'.

p became *d* after *x*, *f* (cp. *f^cdr-ō* etc. § 473, 2). *uxḏa-* 'spoken' : Skr. *ukthá-m* 'a saying'. *praḏā-* 'satisfied, content' fr. prim. Ar. **tṛmp-tha-*, cp. Skr. *tṛmpāmi* 'I satisfy my appetite, become satisfied'.

Rem. 2. Fierlinger Kuhn's Ztschr. XXVII 334 f. conjectures that the *tenuēs asp.* lost their aspiration in prim. Aryan before *m*, *n*, *r*. This however postulates the originality of the *tenuēs asp.* as proved, which I cannot hold as certain.

§ 476. *Mediae*. Prim. Ar. *b*, *d*, *g* *j*, *ž* = Indg. *b*, *d*, *g*, *ḡ*.

Skr. *upa-bd-á-* 'a stamping, trampling' Av. *upa-bd-a-* 'foot', Indg. **bd-* weak st. form of *ped-*. §§ 325. 328.

Skr. *dū-rá-* Av. O.Pers. *dū-ra-* 'distant', rt. *deu-*. § 354.

Skr. *bhāga-s* 'giver of blessings' O.Pers. *baga-* 'god', Indg. **bhago-s*. Skr. *jīvā-* Av. *jīvya-* 'alive', Indg. **gīyó-*. §§ 449—451.

Skr. *jōṣa-* Av. *zaoša-* 'favour, kindness', O.Pers. *dauštar-* 'friend', rt. *ḡeys-*. §§ 402—404.

The transition of Indg. *d^cd(h)* to *zd(h)* (§ 470) may be regarded as prim. Ar.; it was in any case younger than the change of prim. Ar. *z* to *ž* (§ 591). *z* remained in Iranian; *azd(h)* became *ēd(h)* in Skr., cp. *ōdḥ* from prim. Ar. *aždh* § 404, 2. Skr. *dēhī* Av. *dazdi* 'give' imper., Indg. **de-d^c-dhī*, rt. *dō-* 'give'. Skr. *kiyēdhā-* 'extensive, capax', prim. Ar. **kiyad^cdha-*

i. e. **kiyat+dhā-*. Here belongs also *zdh* for Indg. *dh+t* (§ 552). Skr. *mēdhas-* Av. *mazdah-* 'wisdom', prim. Ar. **mazdhas-*, that is, Indg. **mṛdh+tos-*, rt. *mendh-*. Av. *ver'zda-* 'grown up, powerful' fr. prim. Ar. **urzdha-* i. e. Indg. **urdh+to-* (Skr. *vardh-* 'grow'). Osthoff Morph. Unt. IV 261 f. conjectures, that Av. *uz* 'out, upwards' beside Skr. *ud*, is a generalisation of the form regularly developed before *d-*, as in *uz-daeza-* 'accumulation', and that *us* was developed from *ud* in compounds like *us-tāna-* 'stretched out' = Skr. *ut-tāná-*, *us-ca* 'high up' = Skr. *uc-cā*; cp. also Gr. *ύς-πληξ* beside *ύς-τοίχης* and Cypr. Paph. *ύ* as also Germ. *uz-* § 536 rem.

Rem. This regular state was frequently altered through new formations in Sanskrit and Iranian. Skr. *daddhi* for *dēhi*, *addhi* 'eat' imper. for **ēdhi*, *rupāddhi* 'he checks' (*rudh-*) for **rupēdhi* (*ṛnēdhi* arose at the time when such pres. forms in *-ēdhi* were in existence, see § 404, 2). Av. *masti-* 'insight' for **mazdi-* i. e. **mṛdh+ti-* (after the analogy of *cisti-* etc.). See the author in Morph. Unt. III 144 ff., Bartholomae Kuhn's Ztschr. XXVII 360 ff.

§ 477. Prim. Ar. *ž* (= Indg. *ǵ*) became the explosive *j* (§ 402) in Sanskrit, and the *ž* (= Indg. *ǵ*) in *žd ždh* = prim. Ar. *žd, ždh* was lost (§ 404, 1. 2), whereas in *žbh* = Prim. Ar. *žbh* it became *ḍ* (§ 404, 3).

-dn- became *-nn-* : *bhinná-* 'split, divided', from *bhid-*.

Rem. Analogously *-nn-* from *-dn-* : gen. pl. *šannām* (*šakš-* 'six'), a new formation after *šadbbhiš* etc.; on this *ḍbh* cp. § 591.

No consistency exists in the treatment of *-dm-* and *-gm-*. *kakūnmant-* beside *kakúdmant-* 'providing with a point'. *mṛnmáya-* 'consisting of earth, clay' fr. **mṛd-maya-*. *vānmáya-* 'consisting of speech' fr. **vāg-máya-* beside *vāgmín-* (§ 472 rem.). Whence this fluctuation arises, is not clear to me. Are the forms with *-dm-* and *-gm-* new formations as compared with the others?

§ 478. In Iranian *b, d, g j* apparently remained explosives throughout in O.Pers. and the Gāpā dialect, whereas in later Av. they became the spirants *w, ḍ, γ ž* medially except after sibilants and nasals, *g* also initially before consonants except *r*.

Late Av. *vaēda* Gāp. *vaēda* 'he knows' : Skr. *vēda*. *dadmahi* Gāp. *dad'mahī* 'we give' : Skr. *dadmási*. *baγa-* O.Pers. *baga-*

'god': Skr. *bhāga-*. *uyra-* Gāp. *ugra-* 'strong, powerful': Skr. *ugrā-*. *ja-ym-ūši* fem. part. perf. act. from rt. *gem-* 'go': Skr. *ja-gm-ūši*. *γ'na-* Gāp. *g'na-* 'wife': Skr. *gnā-*. *taṣṣa-* 'sharpness, edge': Skr. *tējas-*, beside late Av. *tiyra-* 'pointed': Skr. *tigmā-* 'sharp, vehement'.

Rem. 1. *j* is often written for *ž*, e. g. *aojah-* 'strength': Skr. *śjas-* (§ 451). See Hübschmann Kuhn's Ztschr. XXIV 353, Bartholomae Handb. § 129 rem.

Rem. 2. *der'wāa-* 'plait' may be held as an example for *w = b*: Skr. (and prim. Ar.) *dṛbāhá-* 'knitted, wound' from rt. *derbh-*, it is however not certain, that prim. Ar. *b* was a continuation of prim. Indg. *b*, see §§ 469, 6. 552.

On the other hand the late Av. explosives initially (except *g* before consonants *s.* above) and after sibilants and nasals. Late Av. *daḍmahī*: Gāp. *dad'mahī*. *hazdyāp*: Skr. *sēdyāt*, 3. sg. opt. perf. from rt. *sed-* 'sit', Indg. **se-zd-ṣē-t*. *vandaitē* 'he loves': Skr. *vāndatē* 'he praises'. *gāu-š* 'bullock': Skr. *gāu-ṣ*. *mazga-* 'marrow': cp. Skr. *majjan-* fr. prim. Ar. **mazjan-* (§§ 450. 590. 591). *aṇgušta-* 'toe': Skr. *aṇguṣṭha-*.

Prim. Ar. *dy* appears in Av. as *dv*, *db*, *āb*, *b*. See § 356.

☞ Late Av. *nm* from *dm* in *nmāna-*: Gāp. *d'māna-* n. 'house', to Skr. *dāma-s* Gr. *δόμος* etc., similar in formation to Gr. *δμη-* in *διδμη-α* *εὖ-δμητο-ς*. Cp. Skr. *kakūnmant-* § 477.

Late Av. *v* fr. *gv*, see § 450.

Prim. Ar. *žn* = Indg. *gn* became *šn*, in Iran. prim. Ar. *žm* = Indg. *gm* became *sm* in Av. See § 403.

§ 479. *Mediae aspiratae*. Prim. Ar. *bh*, *dh*, *gh* *jh*, *žh* = Indg. *bh*, *dh*, *gh*, *gh*.

Skr. *bhrāta* Av. *brāta* O.Pers. *brāta* 'brother', Indg. **bhrātō(r)*. § 329.

Skr. *dhārṣ-ā-mi* 'I venture', Av. *darš-i-š* 'vehement, eager', O.Pers. *a-darš-nau-š* 'he ventured', rt. *dhers-*. § 357.

Skr. *gharmā-* Av. *gar'ma-* 'heat', rt. *gher-*. Skr. *hānti* Av. *jainti* 'strikes', O.Pers. *ajan-am* 'I struck', rt. *ghen-*. §§ 452—454.

Skr. *hāv-ana-* Av. *zav-ana-* 'call', weak rt. form *ghu-*. §§ 405—407.

§ 480. In Sanskrit *ḥh* became in the first instance *jh*, e. g. prim. Ar. **ḥhay-* 'to call' became **jhay-*, prim. Ar. **ḥhā-* 'leave, forsake' became **jha-* (cp. § 406).

Then the law of the dissimilation of aspirates operated, by which the aspiration was dropped when the next syllable began with an aspirate. *bódhati* 'awakes, is heedful of' fr. prim. Ar. **bhaydh-a-ti*, rt. *bheydh-* (Gr. *πεύθομαι* 'I inquire', Goth. *ana-biuda* 'I bid, command'). *drógha-s* 'malicious injury' fr. prim. Ar. **dhraugh-a-s*, rt. *dhreugh-* (O.Icel. *draugr* 'ghost'). *dádhati* 'places, lays' from prim. Ar. **dha-dhā-ti*, rt. *dhē-* (Gr. *θήσω* 'I shall put, place'). *durbhīṣ durbhyás durbhyám* (from Indg. **dhur-* 'door', Armen. *durn*, Gr. *θύρα*, Goth. *daúr*) from **dhur-bhiṣ* etc.; then after these *dúr-as dvār-as* etc. instead of regular **dhúr-as* etc.; observe, that the word was current in the Veda only in the pl. and du., fewer case forms than was otherwise usual therefore stood opposite to the *bh*-cases. *jaghāna* perf. 'he struck' fr. prim. Ar. **jha-ghān-a* Indg. **ghe-ghon-e*, imper. *jahí* 'strike' fr. prim. Ar. **jha-dhi* (a new formation for regular **gha-dhi*, see § 454 rem.) Indg. **ghn-dhí*, rt. *ghen-* (Gr. *φόνος* 'murder'). *já-hā-ti* 'leaves, forsakes' fr. prim. Ar. **ḥha-ḥhā-ti* (Av. *za-zāiti*) through the intermediate stages **jahjhāti* **jajhāti* (s. below). *janaghā-* 'the lower part of the leg' fr. prim. Ar. **ḥhanaghā-* (Av. *zanaga-* 'instep', Goth. *gaggs* 'way, street').

From the similar law affecting the *tenuēs asp.*, which was undoubtedly specially Skr., I conclude that this law of dissimilation operated first in Skr., not already in prim. Aryan. See § 475.

Rem. 1. Forms like *vṛtra-hā-bhiṣ* (*vṛtra-hán-* 'vritra killing') instead of **ja-bhiṣ* (cp. *jahí* above) are easily explained as new formations. So far as I know, dissimilation never appears, when the two aspirates belonged to different members of a compound, cp. e. g. *abhi-bhūti-ṣ* 'ascendency', *garbha-dhī-ṣ* 'the place for coition, nest', *ahi-hán-* 'serpent-killer'; cp. on the other hand Gr. *ἰκε-χρεῖα* § 496. It must here be observed that such compounds might have been formed anew, after the above law had ceased to operate, and that the simple form — which was felt as a factor in composition — might always have exercised an influence on the old inherited and actually reproductive forms.

Rem. 2. In forms like 2. sg. *dhatsé* beside 1. sg. *dadhé* 'I place for myself', fut. *bhōtsyātē* beside pres *bódhatē* people often speak, in an

unscientific fashion, of a 'leaping over of the aspiration' on to the media of a preceding syllable. *dhatsē*, *bhōtsyātē* had much rather retained the Indg. initial (Indg. *dhz*, *bheydh-*). *-ts-* was here already in existence before the operation of the law of dissimilation, and when this came into operation there was nothing to be dissimilated in these forms, hence the initial remained intact. Cp. Gr. *θελξ* : *τελξ*; § 496.

Rem. 3. In what manner did dissimilation regularly take place, when aspirates formed the initial sound in three or more syllables? e. g. Skr. *bu-bōdha* 3. sg. perf. = prim. Ar. **bhu-bhaydh-a*. This question requires further investigation.

jh (= Indg. *gh* and *ǵh*) became *h* after the conclusion of the aspirate-dissimilation, as *hānti* fr. **jhanti*, Indg. **ghen-ti* (Av. *jainti*), *jāhati* fr. **jajhati*, prim. Ar. **ǵhu-ǵhā-ti* (Av. *zazāiti*).

h appears several times for *dh* and *bh* without the reason for the change being clear. Thus *-hi* beside older *-dhi* Gr. *-θι*, ending of the 2. sg. imper.; *-mahē* Av. Gāp. *-maidē* Gr. *-μεθα*, ending of the 1. pl. mid.; *sa-há* beside older *sa-dhá* 'at the same time, with' Av. *ha-ḍa*; *grh-ṇā-mi* beside older *grbh-ṇā-mi* 'I seize'. [Cp. von Bradke Ztschr. d. d. morg. Ges. XL, p. 65 sqq.]

Rem. 4. This change of *dh bh*, which caused the meaning of Skr. *h* to be fourfold, (Indg. *bh*, *dh*, *gh*, *ǵh*), gave rise to several 'deviations' (Entgleisungen). Thus desiderative *jighṛkṣati* 'he desires to seize' for **ji-ghṛps-a-ti*, to *grhṇāmi*.

§ 481. In Iranian prim. Ar. *bh*, *dh*, *gh* *jh*, *ǵh* fell together with prim. Ar. *b*, *d*, *g* *j*, *ǵ* (cp. Keltic § 524 and Baltic-Slav. §§ 542. 549). Hence all the mutations, mentioned in § 485, took place here also.

The spirants *w*, *ḍ*, *γ* *ž* in later Av. *aiwi* Gāp. *aibī* 'above, thereto, hither' : Skr. *abhī*. *avra-* n. 'cloud' : Skr. *abhrá-*. Pres. stem *da-ḍa-* Gāp. *da-da-* 'put, place' : Skr. *da-dhā-* prim. Ar. **dha-dhā-*. *dar̥ga-* Gāp. *dar̥ga-* 'long' : Skr. *dārghá-*. *yn-ē* 1. sg. pres. mid. from *jan-* (Indg. *ghen-*) 'slay' : Skr. *ghn-ē*. *snaežaiti* 'it snows', prim. Ar. **snaijhati* : Gr. *σιει* Indg. **sneigh-e-ti*. *dažaiti* 'burns' : Skr. *dāhati* (cp. *ni-dāghá-s* 'heat'), Indg. **dhegh-e-ti*.

Rem. *j* written for *ǵ* e. g. in *ar̥jaiti* 'deserves, is worth' : Skr. *ārhati*, rt. *argh-* (§ 429 a). Cp. § 478 rem. 1.

Explosives (*b, d, g j*) in later Av. *barami* 'I bear': Skr. *bhārāmi*. *skemba-* 'pillar': Skr. *skambhā-* 'supporting pillar'. *dama* 'creature': Skr. *dhāma*, rt. *dhē-*. *mīžda-* 'pay, reward': Skr. *mīdhā-*. Gr. *μισθός*. *dazdi* 'give' imper.: Skr. *dēhi*. *bandayeiti* 'binds': Skr. *bandháyati*. *gar'ma-* 'glowing heat': Skr. *gharmā-*. *zarəga-* 'instep': Skr. *jarəghā-*. *jainti* 'strikes, kills': Skr. *hánti*. *renjayeiti* 'he hastens': Skr. *raḡháyati*.

Late Av. *n* fr. *dn*: *buna-* 'ground, bottom': Skr. *budhnā-*.

Late Av. *v* fr. *gv*, see § 453.

Prim. Ar. *žhn*, *žhm* = Indg. *ghn*, *ghm* became Av. *šn*, *sm*. See § 407.

§ 482. The prim. Ar. combinations *bdh*, *d'dh* (thence *zdh* already in prim. Ar.), *gdh*, *ždh* = original *bh*, *dh*, *gh*, *gh* + *t* and *bzh*, (*dzh*, thence *zh*), *gžh*, *žžh* = original *bh*, (*dh*), *gh*, *gh* + *s*. Cp. §§ 469, 6. 470.

Skr. *dybdhá-* 'knitted, tied, wound', Av. *der'wāda-* 'plait' (§ 478 rem. 2), rt. *derbh-*. Skr. *mēdhas-* Av. *mazdah-* 'wisdom' = **myd̥h + tos-*, see § 476. Skr. *drugdhā-* n. 'offence, insult', rt. *dhreygh-*. Av. Gāp. 3. sg. imperf. mid. *aog'da* (*aog-* *aoj-* 'speak, name') = **eygh + to*, cp. Gr. *εὔχομαι εὔκτο*. Skr. inf. *vōd̥hum* 'vectum' = **uegh + tu-m*, Av. *važdri-š* 'promoter' = **uegh + tri-*, rt. *uegh-*, see § 404, 2.

Rem. 1. Many exceptions to this law — especially in Iranian — arose through the analogy of other words of the same suffix-category, in which the suffix had *t* (e. g. Skr. *yuktā-* Av. *yuxta-* 'junctus'). Examples: Av. *dapta-* 'deceived, cheated' for **dawcāda-* = Skr. *dabdhā-*. Av. O.Pers. *basta-* 'bound' for **bazda-*, cp. Skr. *baddhā-*, rt. *bhendh-*. Av. *druzta-* O.Pers. *dūrūxta-* 'cheated, belied' for Av. **druyda-* (Gāp. **drug'da-*) O.Pers. **dūrūgda-* = Skr. *drugdhā-*. Av. *aorta* beside Gāp. *aog'dā*, see above. Av. *vaštar-* 'beast of draught' for **važdar-* (cp. *važdri-š* above) = Skr. *vōd̥hār-*. Skr. Ved. 2. du. *dhaktam* for **dagdham* from *dagh-* 'reach to, attain', 1. pl. *daghma*. 3. sg. mid. *dhattē* 'ἰθρται' probably in the first instance for **daddhē* (see below). Cp. Lat. part. *com-ēstus* for *com-ēsus*, 2. pl. *ēstis* for **ēsis* etc., § 501 rem. 2, OHG. *wista* for *wissa* etc., § 527 rem. 3.

The Skr. forms with *ddh*, as *baddhā-*, *buddhā-*, arose by attraction to the other forms of the same root, thus also **daddhē* probably as intermediate stage between **dēdhē* and *dhattē*. Cp. *daddhi* for *dēhi* § 476 rem. 1, *didid̥dhi* for **didid̥dhi* § 404 rem. 2.

Skr. *dīpsati* 'intends to injure', Av. *diwǰaidyāi* 'to wish to deceive', desiderat. formations to Skr. *dabh-* Av. *dab-*. Skr. 2. sg. *dhókṣi* 'thou milkest' (3. sg. *dōgdhi*); Av. Gāp. 2. sg. *aoyǰā* (3. sg. *aog'dā* see above). Skr. 3. sg. *vákṣat* Av. *vaǰaḥ* s-aorist to Skr. *vāhati* Av. *vazaiti* 'vehit', rt. *ueǰh-*.

Rem. 2. Examples for *d*h + *s* seem to be wanting. The *-ts-* in Skr. *bhōtsyātē* (fut. fr. rt. *bheudh-*) cannot be regarded as the regular continuation of *dzh*, because after prim. Ar. *zd(h)* from *dzd(h)* (§ 476) it is probable that *d* became assimilated to the following *zh* already in prim. Ar.

Armenian.

§ 483. The *tenues* were very variously treated as regards their form of articulation.

p appears as *p̄* in the vicinity of original *s*: *poit̄* 'σπονδή', *eḫem* 'I cook' probably to Gr. *ἔψω*. As *v* after vowels: *ev* 'and, also', Gr. *ἐπi*, *evtn* 'septem'. As *h* (*y*) initially before vowels: *hing* 'πέντε', *hefi* 'distant' Gr. *πέρᾱν*. See § 330.

Initial *p* disappeared before *l*. *li* (gen. *lioy*) 'full' fr. **plē-jo-*: Skr. *prā-tā-* 'filled', Gr. *πλή-ρης* 'full', Lat. *plē-nu-s*, O.Ir. *l̄-naim* 'I fill'. *luana-m* 'I wash': Skr. *plāv-ayāmi* 'I inundate, pour over, wash', Gr. *πλύνω* 'I wash'.

t appears as *t* after *s*: *astl* 'star' Gr. *ἀστήρ*. As *t̄* initially before vowels and (under what conditions?) medially: *tāram-i-m* 'I become dry, wither' Gr. *τέρσομαι*, *ut̄* 'eight' Gr. *ὀκτώ*. *ē* fr. *tū*: *ēo* 'of thee' Skr. *tvām*. *t* appears as *d* after *r*, *n*: *mard* 'man, homo' Skr. *mṛtā-*, *dr-and* 'door-post' Lat. *antae*; cp. *g* fr. *k* below. See § 360.

Intervocalic *t* became *ḡ* and then disappeared: *hair* 'father' Gr. *πατήρ*, nom. pl. *har-ē* first probably fr. **hair-ē*. *-aur-* from *-atr-*: *haur* 'father's' Gr. *πατρ-ός*. *-rh-* *-h-* fr. *-rt̄h-* or *-rtr-*: *marh mah* 'death' Skr. *mṛtyú-ṣ* or Goth. *maúrþr*. See § 360.

t- had disappeared initially in *ere-ē* 'three', first of all from **re-ē*: Skr. *tráyas*. See § 263.

q appears as *k* (*ē*) and *č* except after nasals and liquids: *akn* 'eye' Lith. *ak-i-s*; *lē-ane-m* 'I leave' Gr. *λιμπάνω*; *ač-ē* pl. (*i*-stem) 'eyes' Lith. *akl-s*. As *g* after liquids and nasals: *arge*

'impediment' Gr. ἀποκείω; *hing* 'five' Skr. *pāñca*; cp. *d* fr. *t* above. See § 455 1).

Examples for the dropping of *q* are uncertain. See Hübschmann Arm. St. I 76.

k generally appears as *s*: *sar* 'height' Skr. *śtras-*. *ç* fr. *sk* (*kšk*, *ssk*) and *ks*: *harç* 'question' Skr. *prchā*, *veç* 'six' Gr. ἕξ. See §§ 408. 561.

Loss of *k* before *t* in *ut* 'eight' (Skr. *aṣṭā*), probably also before *l* in *lu* 'audible' (cp. Skr. *śru-*). See § 408.

§ 484. The *mediae d*, *g* became *tenuēs*, *ḡ* became a voiceless affricata. Cp. the shifting of the *mediae* in Germanic, § 533.

d became *t*. *tiv* 'day': Skr. *dīvā* instr. 'by day'. See § 361.

g became *k*. *ker* 'food, meat': Skr. *girāmi*, rt. *ger-*. See § 456.

ḡ became *c*. *cer* 'old man': Av. *zaurvā-* 'age', rt. *ḡer-*. See § 409.

Examples for the shifting of *b* to *p* are unknown to me. Cp. § 331.

§ 485. The *mediae aspiratae bh*, *dh*, *gh* became *b*, *d*, *g*; *ḡh* became the voiced affricata *j*, or the voiced spirant *z*.

bh became *b*, which remained initially and after *λ*, *r*, *m*, but became *v* after vowels. *ba-n* 'λόγος': Gr. φημι. *elbeur* 'spring, source': Gr. πορεύο. *arbi* 'I drank': Lat. *sorbeō*. Instr. sg. *akam-b* pl. *akam-bē* from *akan-* 'eye': Skr. *-bhiṣ*. *lus-a-vor* 'clear, bright': Gr. λευκο-φάρος. See § 332.

dh became *d*. *diem* 'I suck': Skr. *dháyami*. See § 362.

gh became *g*, which remained except before original *e*- and *i*-vowels, before these it passed into *j* initially, and into *ž* medially. *gan* 'strokes, blows': Skr. *ghan-á-*. *jerm* 'warm': Gr. θερμός. *iž* 'viper': Av. *aži-š*. See § 457.

ḡh became *j* initially and after *n* and *r*, and *z* after vowels. *jaune-m* 'I consecrate, sacrifice': Av. *zaotar-*. *anjuk* 'narrow':

1) The *j* in *arj* 'bear': Skr. *ṛkṣa-s* Gr. ἄρκτος is probably parallel to this *g* and *d*. Cp. § 561.

Av. *qzah-*. *barjr* 'high': Av. *ber'zant-*. *lizu-m* 'I lick': Lith. *lėžiù*. See § 410.

Greek.

§ 486. The *tenuēs* generally retained their form of articulation.

p. *πλέ(φ)ω* 'I swim': Skr. *plāv-ē*. See § 333.

t. *τάλ-αντο-ν* 'balance': Skr. *tulā-*. See § 363.

k̄. *καρδ-ία* 'heart': Lat. *cor*. See § 384.

q. *καρπ-ός* 'fruit': Skr. *kṛpāṇa-s*. *ποινή* 'atonement': Av. *kaṇā-*. *τὲ* 'and': Lat. *que*. See §§ 425. 426. 427.

These sounds seem to have been spoken with aspiration for a time in some districts, especially in Attica. Owing however to the inexactness and inconsistency of the written language it is impossible to determine accurately how far this tendency extended.

Rem. Many of the cases, where the aspiration was formerly regarded as being purely phonetic, are rather new formations made by analogy, e. g. *ἀλείφω* 'I anoint with oil' (beside *λίπα*, Skr. *limpāti*), *δέχομαι* 'I receive' (beside Ion. Dor. Lesb. *δέχομαι*), perf. *τέτροφα τετράφαται* (to *τρέπω* 'I turn'). See Osthoff Zur Gesch. d. Perf. 284 ff. In the same manner *mediae* also came into the place of *tenuēs*, as *κλεβιάς* (Messen.) to *κλεπ-* 'steal', *ᾠρύγην* to *ὄρνυ-*. See Osthoff in the above work.

§ 487. *Tenuis* became *ten. asp.* before *ῥ* i. e. voiceless *r* (cp. § 266). *τέθριππο-ν* 'four-horse chariot' = *τέτριππο-ν* fr. **τετρο-ίππο-ν*. *φροῦδο-ς* 'gone away' = *φρόυδο-ς* fr. **προ-όδο-ς*. This affection corresponds exactly to *ἔφοδος* 'approach' = *ἐπόδος*.

Tenuis became *media* before *media*. *ἐγ-δίδωμι* fr. *ἐκ+δίδωμι*, (cp. Cret. *ἐδδίγηται* with *δδ* fr. *γ-δ*, cp. *νυττί* § 384), *ἐγ-βάλλω*, *ἐγ-γονο-ς*, *ὕβ-βάλλω*. The etymological orthography was frequently used, *ἐκ-δίδωμι* etc., and probably it was also pronounced -*κδ-* etc.

ντ = Indg. *nt*, *ηq* (§ 427 b) became (*υ*)*δ* in Pamphyl. (for -(*υ*)- cp. § 205). 3. pl. conj. *ᾄγω(ν)δε* = Dor. *ᾄγωντι*. *πέ(ν)δε* = Att. *πέντε*, Indg. **peṇqe*.

§ 488. *πμ* mostly became *μμ*, Lesb. *ππ*. *ὄμμα* 'eye' fr. **ὀπμα*, Lesb. pl. *ὀππατα*. *κέκαμμαι* 'I am bent' from **κεκαμμ-μαι* **κεκαμπ-μαι*, cp. 3. sg. *κέκαμπται*.

When *ι* in the combination *τινι* suffered epenthesis (cp. *τεκταίνω* etc. §§ 130. 639), *τ* became assimilated to the *ν* and disappeared. *δέσ-ποινα* 'mistress of the house' fr. **-ποτ-νιχα* beside *πότνια* = **ποτ-νιχα*. Cp. *ράϊνω* fr. **ράδνιχω* § 492.

§ 489. *κι, γι* became a geminated spirant (*ɣ̥p*?) in prim. Greek; this sound was represented by *-ττ-* medially in Bæot., Thess., Att., and in the other dialects by *-σσ-*, but initially universally, as it seems, by *σ-*. On account of the vowel-length in *ἐλάττων* (§ 479) it must be assumed that *ττ*, and *σσ* arose first from a geminated spirant, since *αν* would not have been subjected to the process of compensation lengthening before an explosive. Cp. § 427 *d.* *μάσσων* 'longer' (to *μακρό-ς*): *Αν. mas-yā* 'greater'. *πάσσαλο-ς* 'plug, nail', rt. *paḥ-* (Skr. *pāśa-s* 'string, sling'). *πέσσω πέττω* 'I cook', rt. *peq-*. *ὄσσε* 'both eyes': Lith. *akl-s*. Hom. *σεῦε* (*ἔ-σσευε*) 'he drove, hunted, scared': Skr. *cyav-cyu-* 'put in motion'. Megar. *σά 'τίνα'* fr. **kʰi-a* beside *ἄ-σσα ἄ-ττα* (on *ἄ-* s. § 654). In Att. *τενμάομαι* 'I pursue' and *τεντάζω* 'I busy myself eagerly with something', in case they are from the same root as Hom. *σεῦε*, the initial *τ* may have come from the augmented and reduplicated forms.

τι became *ss* in prim. Gr. Hence universally *σ* after consonants. Fem. Cret. *πάνσα* Att. etc. *πᾶσα* Lesb. *παῖσα* 'tota' (§ 205) fr. **παντ-χα*. *δόξα* 'doctrine, opinion' fr. **δοκ-τ-χα*. *καμινό-ς* 'bent' (Hesych.) fr. **καμπ-τ-μος*. Cp. the *σ-* of *σέβεται* = Skr. *tyájatē* (cp. § 428 *a*), which probably arose from Indg. *tj-* (§§ 117. 598). Otherwise medial *σσ*, which was retained in Homer and elsewhere, seems to have become regularly partly *σ* (Ion. Att.), and partly *ττ* (Bæot. Cret.). *τόσσο-ς* 'tantus' *πόσσο-ς* 'quantus', *τόσος πόσος* (cp. *μίσσο-ς μέσο-ς* § 497), Bæot. Cret. *ό-πόττο-ς*. With this *ττ* cp. Bæot. *κομιττάμενος* = Hom. *κομισσάμενος* fr. **κομιτσαμενος*, Cret. *δάτταθθαι* = Hom. *δάσσασθαι* fr. **δατσασθαι*.

Rem. 1. The regular representatives of *κι, γι* mostly appear for *τιξ* e. g. Att. *ἐρέτω* (*ἐρέσω*) fr. *ἐρετ-* like *φρέτω* (*φρέσω*) from *φρεκ-*, *κρέττων* (*κρέσων*) fr. *κρετ-* like *ἥττων* (*ἥσων*) from *ἥκ-*. These were probably new formations after the analogy of those with original *κι, γι*. Cp. the author's Griech. Gramm. p. 36 note 1.

The Indg. combination *ti* appears medially, in most dialects, generally as *si* after other sounds than *s* (cp. ἔστι, πίστι-ς). Att. δίδω-σι 'gives': Skr. *dáda-ti*; βά-σι-ς 'step, stride': Skr. *gá-ti-ṣ*; ἀνεψιό-ς 'first cousin': O.Bulg. *netijǎ* cpf. **nept-iǵo-s*.

Rem. 2. The combination *-τι* was frequently retained in Bæot., Pamphyl. and Dor., where the other dialects had *-αι*, as Dor. δίδω-τι, πλούτι-ς. But also in those dialects, which show *-αι*, *-τι* occurs beside this, as Ion. Att. ξτι, αἰτιο-ς (cp. πλούσιο-ς), ἀντί, κέρατι, φάτι-ς (cp. φάσι-ς). Form-transference may be assumed in many cases, e. g. κέρατι after κέρατος etc.; σκότιο-ς after σκότο-ς; φάτι-ς μάρπτι-ς μάντι-ς after the cases with *-τεχ*-. Cp. Hom. Ποσειδάων Arcad. Ποσειδάωνος Lac. Ποσιδάωνος with *σ* instead of *τ* (Boeot. Ποτειδάων Ποτοιδάωνος) after Ποσιδ- in Hom. Ποσιδήιος etc. Nevertheless this does not clear the matter up satisfactorily. It is questionable, whether *-αι* did not already arise, to a certain extent, in prim. Greek. Such a great antiquity is especially to be conjectured for the *-αι* in nouns like βάσι-, since these also occur with *σ* in Bæotian and the whole of Doric.

In Lac. and Cypr. *σ* = *t̥i*, in Cypr. at the same time the *σ* of *-σι* = *-ti* passed into *h*: Lac. part. fem. ἐν-ήβωαίς, Cypr. 3. pl. conj. φρονέωι. This *σ* became *ρ* in Eretria: part. fem. ὁμνούρας, 3. pl. conj. παρα-βαίνωριν.

Medial *ty* became *σσ* in Ion. etc., and *ττ* in Bæot. and Att. Hom. τέσσαρες Herod. τέσσερες Lesb. πέσσνρες Arcad. τεσσεράκοντα + Bæot. πέτταρες Att. τέτταρες 'four': Skr. *catvāṣ-ṣas*. Initially: Cret. τῑέ 'thee' (wrongly written τρέ in Hesych.) Dor. τέ Bæot. τίν Lesb. Ion. Att. σέ: Skr. *tvá-*. On the enclitic Ion. Att. etc. τοῖ see § 187.

§ 490. *ts* became *σσ* in prim. Greek, thence *σ* in later times. Hom. aor. πάσασθαι ἐπάσαντο fr. *πατ-σ-: pres. πατέομαι 'I eat, consume'. Hom. aor. ἐφ-εσσάμενο-ς ἀν-έσαντες fr. *ἐτ-σ-: ἔδ-ος 'seat'. Hom. ποσὶ ποσί Att. ποσί fr. *ποτοι: πόδ-ες 'feet', cp. Skr. *patsú*. Correspondingly Indg. *t̥t(h)* became *st(h)* in prim. Greek. ἄ-παστο-ς 'jejeune': πατ-έομαι. ἴστε 'ye know' οἴσθα 'thou knowest' (Skr. *vétttha*): ἴδ-μεν οἴδ-α. Cp. σθ fr. *d̥dh* § 494.

σκ from *σχ*. διδάσκω 'I teach': δι-δακ-τό-ς, Lat. *di-dic-ĭ*. ἑίσκω 'I make like': ἑοικυ. Bæot. ἐς-κη-δεκάτη = ἑξ-κ. Cp. also ἐξ- fr. ἑξ- 'ex' in Arcad. ἐξδοτήρες, Bæot. Gortyn ἐς τῶν.

τρά-πεζυ 'four-legged' table' fr. *πτρα-, Indg. **qtur-*, cp. Skr. *túrya-* § 471.

§ 491. In most dialects, e. g. Ion.-Att., the mediae were voiced explosives in the oldest monuments.

b. *βάρβαρος* 'foreign': Skr. *balbalā-karōmi*. See § 334.

d. *δέξα* 'ten': Skr. *dāśa*. See § 364.

g. *γεῖω* 'I let taste': Av. *zaōša-* 'favour, kindness', rt. *ḡeys-*. See § 385.

g. *ἐρύγομαι* 'I spit out': Lith. *rūgiu*, rt. *reug-*. *βοῦς* 'bullock': Skr. *gāu-ś*, Indg. **gōu-s*. *δελφύς* 'womb': Skr. *gārbha-s*, rt. *gelbh-*. See §§ 425. 426. 428.

The voiced mediae became voiced spirants. We may conclude that *β* had already become *ḃ* in Lac. and El. before the beginning of the Roman period, from the fact that *ϝ* (*ϝ*) was represented in these dialects by *β*. In the oldest El. monuments *δ* appears as *ζ* i. e. *ḃ*, e. g. *ζέ, ζίκαια, Φειζώς*; this affection, so far as we can see, did not take place in the other dialects until later. Forms like *ἔγγιγνις, Σαραπιγῆον, κλαίγω*, occurring in the second century B. C., exhibit the transition of *γ* into the spirant *j* (in any combination whatever). The *γ*, which here represents the consonantal *j*, is only conceivable on the supposition that it denoted elsewhere a spirantal sound; the loss of *γ* after *ι* in Bæot. *ἰών* = *ἔγών*, Tarent. and elsewhere *ὀλίος* = *ὀλίγος* etc., also points to this change.

In Arcad. *ζ* was also written for *δ* = Indg. *g*, e. g. *ζέλλω* beside *δέλλω* 'I throw'. Hence a spirant was also spoken here. Cp. § 428 b.

§ 492. *βν, βμ* became *μν, μμ* in prim. Greek. *μνάομαι* 'I woo to wife' from **βνᾱ-* 'wife', Indg. **gnā-*, see § 428 a. *σεμνό-*s adjectival part. to *σίβομαι* 'I feel awe', rt. *tjeg-*, see § 428 a. *τρίμμα (τροῖμμα)* 'that which is rubbed', perf. mid. *τίτρομαι*, to *τρίβω* 'I rub'.

In like manner *gn, gm* probably became *ʎn, ʎm*¹⁾ in the same period. *γί-γν-ο-μαι* 'am born' i. e. *giʎnomai*. *στνγ-νό-*s

1) For the grounds on which this theory is based see Ebel Kuhn's *Ztschr.* XIII 264, Westphal *Method. Gramm.* I 1, 17, the author in Curtius' *Stud.* IV 103 f., L. Havet *Mém. de la soc. de lingu.* IV 276.

'hated' i. e. **stynōnos*. *īn* became *īn* in Dor., Thess., Bæot. and later Att., as Dor. γίνομαι γινώσκω (cp. § 618). ἀγ-μός 'breakage' i. e. **anōmos*. *īgm* became *īm* (written γμ) through the intermediate stage *īm̄m*, just as *mpm* became *mm* through *mm̄m* (§ 488): ἐφθεγμαι, ἐλήλεγμαι beside -γζαι -γκται.

ῥαίνω 'I sprinkle' fr. **ῥαδ-νιω* (Osthoff Zur Gesch. d. Perf. 457 ff.), like δέσ-ποινα fr. **-ποτνιχα*, see §§ 488. 639.

Lac. ἐλλά 'seat' fr. **ἐδ-λα*, see § 364.

§ 493. *dī*, *gī*, *qī* became one sound, which was mostly written ζ. Ζεύ-ς: Skr. *dyāu-*š; πεζό-ς 'on foot', to πεδά πέδο-ν ἄζομαι 'I stand in awe of', to ἄγιο-ς, Av. *yazaitē*, rt. *īag-*. ζῆ 'lives' fr. **ζηει*, to Av. *jyāiti-*, stem *gīē-*; νίζω 'I wash', to νίπτρο-ν, rt. *neig-* (cp. § 428 d).

οδ was also written for ζ in Lesb., e. g. ἐικάσδω. -δδ-, for which, initially, δ-, appears in Lac., Gortyn, Bæot., and Megar., e. g. the verbal endings -άδδω -ίδδω = -άζω -ίζω, Δεύς = Ζεύς, δωός = ζωός. Seldom τ = ζ in Cret., as Τῆνα = Ζῆνα, also Ττῆνα.

Owing to the uncertainty which exists regarding the value of these different letters, it is impossible to determine accurately the course of development, which the prim. Gr. combinations *dī*, *gī*, *g^hī* passed through.

Rem. ζ was probably pronounced *zd* in Ion.-Att.; cp. O Bulg. *žd* fr. *dī* § 147 rem. 1. δδ might possibly go back first of all to *zd* — or *žd* —. See the author's Griech. Gramm. § 52 with addendum to p. 47, G. Meyer Gr. Gr.² 274 f.

§ 494. ἴσθι i. e. *isthi* arose fr. Indg. **uid^hdhi* 'know' imper. (cp. Skr. *viddhī*, § 476). Whether the intermediate stage was **uizdhi* or **uitsthi*, remains doubtful. Gr. κύσθο-ς 'a hollow, pudenda muliebria' was probably a similar case (§ 469, 5).

§ 495. The *mediae aspiratae* *bh*, *dh*, *gh*, *gh* became *tenues aspiratae* in prim. Greek. These then probably remained unchanged in most dialects, certainly e. g. in Ion.-Att., down to historic times.

bh. ὀφρῶν-ς 'eye-brow': Skr. *bhrū-*š. See § 335.

dh. *θυμός*-ς 'heart, courage, passion': Skr. *dhū-mā-s*. See § 365.

gh. *ἔχ-ω* 'I have, hold': Av. *haz-ah-*, rt. *segh-*. See § 386.

gh. *λίχος* 'bed': O.Bulg. *lēga*, rt. *leg-*. *φόνος* 'murder' and *θείνω* 'I strike': Skr. 3. pl. *ghn-ānti*, rt. *ghen-*. See §§ 425. 426. 429.

The *tenuēs aspiratae* became voiceless spirants in most combinations, through the intermediate stage of *affricatae*. We are not in a position to determine precisely the place and time of this shifting, since the written language offers too few sure holds. The *affricata*-stage seems to occur in such spellings as *ὄχος σκύπφος* and in measures like *ὄφιν* (Hom.) *βρόχον* (Theognis) as trochees. Cp. Roscher Curtius' Stud. I 2, 63 ff. Blass Auspr.² 84 ff. [G. Meyer Gr. Gramm.² 207 ff.]. Spirantal value (*ḫ*) can be established most extensively for *θ*. *θ* remained an explosive in Cret. (Gortyn) before *ρ ν*, as is seen by the writing *τρ νν*, and was a spirant before vowels. *θ* probably only remained an explosive after *σ* in Bæot., El., and Locr. (cp. Att. *ἔστι* beside *δίδοσι*, § 489), hence the writing of *στ* for *σθ*. In Lac., where *ḫ* can be established with the greatest certainty, it passed (before palatal vowels?, see Baunack Die Inschr. von Gortyn p. 36) further into *σ*, as *Σίων* = *Θέων*. *θ* as *ḫ* became *f* in Bæot. and Epir., as is shown by the writing *φ* in *φείος* = *θείος* etc. This *φ* also shows that prim. Gr. *ph* (*φέρω*) had become *f* in these dialects.

Rem. The often assumed change of prim. Gr. *tenuis* asp. to *media* never existed. In cases like *στέμβω* beside *ἀστεμφής*, *πύναξ* beside *πυθμήν* it is a question of Indg. *media* (§ 469, 8), whereas in such as *κατα-λέγμενος* (beside inf. *κατα-λέχθαι*, rt. *lech-*), *δράγμα* 'handful' (to *δραχμή* *δράσσομαι*, Skr. *darh-* 'fasten') we have merely new formations, made after the analogy of similar forms from roots with *media* (Osthoff Zur Gesch. d. Perf. 301 ff.).

§ 496. The *tenuis aspirata* lost its aspiration in prim. Greek, when a *tenuis aspirata* followed at the beginning of the next syllable. *τίθημι* 'I place' fr. **thi-thē-mi*, aor. *ἔτιθην* fr. **e-the-thēn*, rt. *dhē-*. *ἐνύθετο* 'he inquired for' fr. **e-phuth-e-to*, rt.

bheudh-. Gen. *τριχός* 'hair's' fr. **thrikh-os*. *ἐκ-χειριά* 'cessation of hostilities', Delph. *Ἐκ-φύλο-ς* fr. **ekhe-kh-*, **ekhe-ph*.

θριξ: *τριχός* and *θείσσασθαι*: *πόθο-ς* (§ 429 b) = Skr. *dhatsé*: *dadhē*, see § 480 rem. 2. Hence forms like *πείσομαι* *πύστις*, *πείσω* *πίστις* (rt. *bheṛdh-*) are shown to be new formations for **φεύσομαι* etc.; cp. fut. *αὔσω* for regular *αὔσω* § 564.

The remark, made in § 480 rem. 1 on Skr. *vṛtra-hábhīṣ abhī-bhūti-ṣ*, also holds good for the forms *ἐρύθην* (*χέω* 'I pour out'), *θεθμός* Locr. 'statute' beside *τεθμός* Pind., *θίθεται* Cret. Gort. = *τίθεται*, *ἀμφι-γαλο-ς* 'having a double comb', *ἀμφι-χέω* 'I pour around', *παχύ-χυμο-ς* 'with thick juices' etc.

It is difficult to ascertain in what manner the law of the dissimilation of aspirates operated in cases where three or more aspirates followed one after the other (cp. *πῖποιθε*, prim. Gr. **phe-phoīth-e*, *τέθητι* prim. Gr. **the-thē-thī*). Only so much is as yet clear, that the regular operation had been crossed in many ways by analogical formations. Cp. Osthoff's attempt in his *Zur Gesch. d. Perf.* 305.

§ 497. Indg. *dhī*, *ghī*, *ghī* as *thī*, *khī*, *khī* *khī* fell together in prim. Gr. with *tī*, *kī*, *kī* *kī* and accordingly experienced the same treatment as these (§ 489).

μέσσο-ς *μέσο-ς* 'medius' (Skr. *mādhya-s*) like *τόσσο-ς* *τόσο-ς*. *ἀσσον* 'nearer' (*ἄγχι*, root *aṅgh-*) like *μάσσων*.

ἐλάσσων *ἐλάττων* 'less' (*ἐλαχύ-ς*: Skr. *laghū-ṣ*) like *πέσσω* *πίττω*.

Italic.

§ 498. The *tenuēs* remained unshifted on the whole.

p. Lat. *pāx*, Umbr. *pase* 'pace', Osc. Paakul 'Paculus': Skr. *pāśa-*. See § 336.

t. Lat. *tovo-s* *tuo-s*, Umbr. *tover* 'tui', Osc. *tuvai* 'tuac': Skr. *tāva*. See § 366.

k. Lat. *clā-nō*, Umbr. *kle-tram* 'lecticam': Skr. *śrāy-a-ti*. See § 387.

q. Lat. *canō*, Umbr. *kanetu* 'canito': Skr. *kaṇ-kan-ī*. Lat. *qui-s*, Umbr. Osc. *pi-s* 'quis': Av. *ci-š*. See §§ 430. 431.

Where shifting of the tenues happened through sound-change, in combinations, it is frequently not evident — owing to the scantiness of the Umbr.-Samn. monuments — whether this change is to be regarded as having taken place in prim. Italic or only in single dialects.

§ 499. Lat. *b* from *p* before voiced explosives. *ob-dūcō*, *ab-dūcō*, *sub-dūcō*: cp. *op-eriō* 'I close', *ap-eriō* 'I open' (cp. Skr. *ar-* 'move something', *apa+ar-* 'remove, put aside, open'), Osc. *op eizois* 'apud eos', Gr. *ὑπο*, Lat. *super* Gr. *ὑπο*. Hence probably original *p* in *optineō*, *suppōnō* etc.; *ab- ob- sub-eō* made by analogy; *abs*, *obstrūdō*, *obtrūdō*, *subter* etc. phonetically wrongly spelt.

Lat. Umbr. *g* from *c* in the combination *-ækl-*. Lat. *angulu-s*, Umbr. *anglom-e* 'in angulum' fr. **aæklo-* (§ 269), to Lat. *ancu-s uncu-s*. Lat. *singulu-s* fr. **sem-klo-* (§ 269). The cause of the same change is less clear in *septin-gentī nōn-gentī* beside *du-centī* (Gr. *ἑπτα-κόσιοι*); *vīgintī* beside *vīcēsīmus* no doubt owed its *g* to form-transference. Cp. Thurneysen Kuhn's Ztschr. XXVI 312 f.

Media from tenuis after nasals and before *r* in Umbrian. *tursiandu* 'terreantur'. *ander* 'inter'. *an-dendu* 'intendito' fr. **an-tenttu* i. e. **an-tend-tō*. *ivengar* pl. 'iuvencae'. *abrof* 'apros'. *subra* 'supra'. *adrer* 'atris'. Cp. also Osc. *embratur* 'imperator'.

§ 500. Lat. *mn* fr. *pn*. *somnu-s*: *sopor*, Skr. *svāp-na-s* etc., see § 324. *omni-s* fr. **opni-s*, to *ops opēs*. Cp. *mn* fr. *bn* § 506.

Lat. *æn* (written *gn*) from *cn* already in prehistoric times. *dīgnu-s* fr. **decno-s*: *decus*; *tīgnu-m* fr. **tecno-m*, to Gr. *τεκ-* (cp. § 65 p. 53). *īlīgnu-s īlīgneu-s*: *īlex -icis*. *agna* 'spica' (Saliar hymn), to *acus* 'chaff', Goth. *ahana*, OHG. *agana* 'chaff' (otherwise Kluge Kuhn's Ztschr. XXVI 88, who postulates Indg. *akh-* because of Gr. *ἄχρη* 'chaff, foam'). *nīxu-s*, too, fr. **cnīxo-s* (rt. *kneigh-*, § 433 b) had passed through the stage *ænīxo-s* (cp. *Gnīxī dī*). Analogously Umbr. *co-negos* ku-nikas 'conixus'¹). On *æn* fr. *gn* (with original media) cp. what is said in § 506.

1) Cp. also Lat. *cygnu-s* beside *cycnu-s* fr. Gr. *κύκνος*, Prognē fr. *Πρόκνη*, *Gnōssu-s* fr. *Κνωσσός*.

Lat. *mm* fr. *pm. summu-s* : *superior*. So also Umbr. *somo* 'summum'.

Lat. *nm* (written *gm*) fr. *cm. sēgmentu-m* : *secāre*. Cp. *nm* fr. *gm* with original *g*, § 506.

§ 501. The change of *ts* to *ss* seems to have been prim. *Italic*. After a long syllable and finally *ss* became *s* in Lat.

Lat. *con-cussī* : *con-cut-iō*. *suāsī* fr. **syātsī* : *suād-eō*. *scala* fr. **scanslā* **scantslā* : *scandō* (§ 208 pp. 175—176). *novi-tas* fr. **-tāt-s*. *ferēns* fr. **ferent-s*. *con-cors* fr. **-cort-s* (gen. *-cord-is*). That *-ss* = *-ts* had not yet fallen together with Indg. *-s* after nasals and liquids in Latin, follows from the contrast of *ferēns* with *ped-ēs* Indg. **-ys* (§ 208 p. 175) and of *con-cors ars* etc. with *par fūr* (§ 655, 9). Cp. also the contrast of *penna* O.Lat. *pesna* fr. **pet-snā* with *pēni-s* fr. **pes-ni-s* (Skr. *pās-as* Gr. *πέος* 'penis'), § 570.

Umbr. *zeřef serse* 'sedens', *kutef* 'cautus' ('cautens', as it were), Volsc. *asif* 'incendens, adolens flammis'. *-f* first of all fr. *-p*, further fr. *-ns* = *-nts*, see § 209.

Where *ts* (*z*) appears in Umbr.-Samn., it was of later origin : in Umbr. *pihaz* 'piatus' Osc. *hūrz* 'hortus' etc.; in Osc. *az* 'ad', an extension of *ad* after the analogy of Ital. *aps*, *ops*, *eks*; in Umbr. *-nts-* fr. *-ns-* (§ 209).

The change of *ts* to *ss* was repeated in Latin. *possum* fr. **pot-sum*, which was either a new formation after *potest* (fr. *pote est*) or had arisen by syncope (§ 633) fr. **póte-sum*.

Rem. 1. Compounds like *arsequor* fr. **atsequor* (*ad sequor*) were formed at various periods of the language. It is difficult to say, in which examples *ss* had arisen regularly, and in which by analogy.

Indg. *tst* apparently became *ss* everywhere except before *r*¹⁾ in prim. *Italic*, thence *s* after long syllables. Lat. *ob-sessu-s* : Skr. *sattā-* Av. *hasta-*, Indg. **setst-to-s* i. e. **sed + to-s*, rt. *sed-* 'sit'. *fassu-s* : *fateor*. *fossu-s* : *fodiō*. *vorsu-s*, Umbr. *trah-vorfi* 'transverse' (*rf* from *rs*, cp. § 209) : Skr. *vṛttā-* 'versus', O.Bulg. *vrista* f. 'state, situation', Indg. **vytst-to-s*, rt. *vert-* 'vertere'.

1) And except finally? Cp. Lat. *ēst* 'eats' from rt. *ed-*.

morsu-s : *mordeō*. *scānsum* : *scandō*, cp. Skr. gerund. *skanttpā*. *vīcēnsimu-s* *vīcēsimus* : Bæot. *ἱλασρό-ς*, cpf. **uikŋt^h-to-*. *vīrōsu-s* fr. **uīso-ŋŋt^h-to-s*, see § 238. *ūsu-s* *ūsiō* fr. **oiso-s* **oisiō*, Pelign. *oisa* abl. 'usa, consumpta': *oetor* *ūtor*. Cp. also *fisu-s*, with which Bücheler connects Umbr. *Fisiu* abl. 'Fisio', from *feidō* *fīdō*, rt. *bheīdh-* (§ 552).

Rem. 2. Lat. *ēstis* *ēste* (rt. *ed-*) for **ēsis* **ēse* after the forms of other verbs in *-tis -te*. *com-estu-s* for and beside *com-ēsu-s* after forms like *ges-tu-s*, etc.

cette, *mattu-s*, O.Lat. *ad-gretu-s* by syncope (§ 633) fr. **ced(i)te*, **mad(i)to-s*, **ad-gred(i)to-s*; cp. *alitu-s* and *altu-s*, *ē-licitu-s* and *al-lectu-s*. Correspondingly Osc. *úfttiuf* 'usio, usus' fr. **oit(i)tiuf* (cp. Lat. *vomit(i)ō*). This new *tt* remained unchanged like the *tt* in *attulī* fr. *ad tulī*. Cp. the author in Morph. Unt. III 133 f., Osthoff Zur Gesch. d. Perf. 555 ff.

On the other hand *t^htr* became *str*. *pedestri-s* : *pedit-ēs*. *assestrīx*, *ēstrīx* to *sed-*, *ed-*. Umbr.-Samn. examples are wanting.

Rem. 3. That the course of development was not here *ssr* — *sr* — *str*, as some maintain, but that the *t* e. g. in *ēs-trī-x*, was the same as that in *vic-trī-x*, follows from the fact that *sr* did not become *str* but *fr* — *br* (§ 570).

The *Italic* treatment of Indg. *t^ht* was precisely parallel to that of the *Germanic*. See § 527.

On initial *s-* fr. *ps-* and *x-* see § 568, 2.

Lat. *ff* from *pf* : *offerō*, *sufferō*.

Osc. *meddīss* *meddis* 'meddix', cp. Lat. *jū-dex*; nom. pl. *meddīss* beside *μῑδδῑς* fr. **-dik-(e)s*. Umbr. *osatu* 'operato, facito' *oseto* 'facta' beside Osc. *úpsannam* 'operandam, faciundam'.

§ 502. Prim. Ital. *kt* passed into *χt* (*ht*) in Umbr.-Samn., and prim. Ital. *pt* into *ft* (in Umbr. further into *ht*). Umbr. *rehte* 'recte', *aan-fehtaf* 'infectas', *uhtur* 'auctor'. Osc. *saah-túm* 'sanctum', *Úhtavis* 'Octavius'. Umbr. *screhto* 'scriptum', Osc. *scriptas* pl. 'scriptae'.

The combination *kt* arose anew in Umbr.-Samn. by vowel syncope (§ 633) and was now treated differently from prim. *Italic kt*. Osc. *factud* 'facito', *actud* 'agito'. Umbr. *feitu fetu* *feetu* 'facito', *aitu* 'agito', to which *aŕ-veitu* *ars-veitu* 'advehitō' (rt. *uegh-*) joined itself.

Rem. Prim. *Italic k** = Indg. *q* seems to have remained an explosive both where it was followed by a *t* in prim. *Italic*, and where it later came together with *t* by syncope. Osc. Πομπτις; 'Quinctius', Indg. **penqto*- 'quintus'. Umbr. *ninctu* 'ninguito' (cp. § 570), *fiktu* 'figito' (O.Lat. *fiuere* beside *figere*, *fibula* fr. **fi(g)ye-blā*), *umtu* 'unguito' in the first instance from **umptō*.

k became *ś* before *e*- and *i*-vowels in Umbrian, e. g. *faśia* 'faciat'. See § 387. How the form *feia* beside *faśia* is to be explained, I am unable to say. Cp. *muieto* 'muttitum', where *i* seems to express a voiced spirant (§ 508).

Osc. *s* fr. *tj*. *Bansae* loc. 'Bantiae', cf. *Bantins* 'Bantinus'.

§ 503. Loss of *tenuēs* in consonantal groups.

Lat. *poscō* fr. **porc-scō* : *prec-or* (§§ 269. 288). *misceō* fr. **mic-sceō* : Skr. *miś-rā*- 'mixed'. *illūstri-s* fr. **in-louc-s-tri-s* : *luc-eō*. *discō* from **dūscō* i. e. **di-dc-scō* : *di-dic-ī*, cp. Gr. δι-δα(κ)-σκω § 490. *asportō* fr. **aps-portō* : *abs* i. e. *aps*. *ostendō* fr. **ops-tendō* : ob. *sternuō* fr. **pster-* : Gr. πτάρνυμαι 'I sneeze' fr. **πταρ-*.

Lat. *lūna*, O.Lat. inscrip. *losna* fr. **louc-s-nā* : Av. *raoxšna*- 'shining, luminous'. *sēnī* fr. **sexnī*. *sēmēstri-s* fr. **sex-mēstri-s*. *sub-tēmen* fr. **texmen*. *ala* fr. **axlā* : *axilla*, OS. 'ahsla 'axilla'. *ē-nūntiō ē-mergō ē-ligō ē-dō* fr. **ex-nūntiō* etc. (cf. *dī-numerō dī-moveō dī-luō dī-dūcō* fr. **dis-numerō* etc.). Cp. § 570.

Lat. *mulsi*, *fulsi* fr. **mulxī*, **fulxī*. *ursu-s* fr. **urxu-s* : Skr. *ṛkṣa-s*. *torsi*, *sparsi* fr. **torxī*, **sparxī*. *ultu-s* fr. **ulctu-s*. *tortu-s* fr. **torctu-s*, cp. *forti-s* O.Lat. *forcti-s* : Skr. *dyḍhā-s* (§ 295). *quintu-s* (beside inscrip. *Quinctu-s*), but *jūntu-s fūntu-s* with *c* probably not without the influence of *jungō jūnxī, fungor; defuntus, nantus, santo* first on late inscriptions. *urna* fr. **urcnā* : *urceu-s*. *pāstu-m* from **pāscu-m*, *postulō* fr. **po(r)sculō*, formed from the presents *pā-scō po-scō*.

l- from *spl-* *stl-* through the intermediate stage *sl-*. *lien* : Gr. σπλήν. *locu-s, līs* fr. O.Lat. *stlocu-s, stlīs*. The stage *slīs* is found twice on inscriptions. On *ilicō* cp. § 570.

Umbr. *ostendu* 'ostendito' fr. **ops-t*. Cp. also *osatu* 'operato, facito', § 501.

§ 504. The mediae generally retained their form of articulation.

b. Lat. *bibō* : Skr. *pībāmi*. See § 337.

d. Lat. *dīcō*, Umbr. *deitu* 'dicito' Osc. *deikum* 'dicere' : Skr. *diśāmi*. See § 368.

g. Lat. *gen-us*, Osc. *Genetai* 'Genetrici' : Skr. *jan-* Av. *zan-*. See § 388.

g. Lat. *gelu*, Osc. *γελαν* 'pruinam' : O.Bulg. *žlédica*. Lat. *unguō*, Umbr. *umen* 'ungen' fr. **umben* : Skr. *añjī-*§. Lat. *veniō* fr. **gweniō*, Umbr. *benust* 'venerit' : Gr. *παίρω*, rt. *gem-*. See §§ 430. 432.

In the Italic branch other sounds — in Lat. especially the Indg. med. asp. — fell together with the Indg. mediae. Some of the changes of articulation, discussed in the following sections, equally concerned these other sounds.

That Lat. *b* (= Indg. *b*, *dy*, *bh*, *dh*, *gh*) was spoken as *ḃ* from the second century onwards, seems to follow from such inscriptional forms as *quivus* for *quibus* and *cibes* for *cives* (Corssen Ausspr. I² 131 ff., Seelmann Ausspr. 239 f.).

§ 505. A media became a tenuis, when it came to stand before a voiceless spirant or explosive. Lat. *cette* fr. **ce-dite* etc., see § 501 rem. 2. Osc. *actud* 'agito', Umbr. *aitu* 'agito' fr. **aktōd*, prim. Ital. **agetōd*, Umbr. *fiktu* 'figito' umtu 'unguito', see § 502. Cp. also Lat. *attuli*, *accumbō*, *appellō* fr. *ad tulī* etc.

§ 506. Lat. *mn* fr. *bn*. *scamnu-m* : *scabellu-m*. Cp. *mn* fr. *pn* § 500.

ɲn (written *gn*) from *gn* already in prehistoric times. *lignu-m* fr. **legno-m* : *legō*, see § 65 p. 53. *benignu-s*. **ad-gnōscō* became **aggnōscō*, further *anōscō*, written *agnosco*. *ɲgn* became *ɲn* : *ignōscō* i. e. *ɪnōscō* fr. **iɲ-gnōscō* ; *cōgnōscō* i. e. *cōɲnōscō* fr. **con-gnōscō*. *ɲn* became *n* initially, probably at the same time as the *ɲn* which had arisen from *cn* (§ 500); this change took place about 150 B. C. : *gnātu-s* *nātu-s*, *gnōscier* *nōscō*. So also Umbr. *naratu* 'declarato', to Lat. *gnāru-s* *nāru-s*.

Rem. 1. The *n* instead of *gn* in *renum*, *propunatori* etc., on inscriptions under the Empire, is also to be explained from the pronunciation *ɲn*.

nam from *gm*. *āgmen* i. e. *ānāmen* from **agmen*. From *exāmen* beside *agmen*, the former of which points to **agmen* with originally long *ā* (cp. *amb-āgēs*, *co-āgulun*) — **exāgmen* would have become **ex-egmen*, see § 97 — we may conclude that the simplification of *gm* to *m* took place regularly only before orig. long vowels, or diphthongs. With this also agree *con-tāmin-ō* : *con-tāgiu-m* and *jūmen-tu-m* : Gr. ζεύγμα Lat. *jūger-a*. Cp. *nam* from *cm* § 500.

m from *dm*. *caementu-m* : *caedō*. *rāmentu-m* : *rādō*. *flāmen* to Goth. *blōtan* 'to honour (the deity) with offerings' or to *flagrāre*? *cacūmen* fr. **cacūdmen*? : Skr. *kākud-* 'top'.

Rem 2. I do not venture to express an opinion as to the treatment of *dn* in Latin, but merely refer to the conjectures by W. Meyer Kuhn's *Ztschr* XXVIII 164 f.

nd (which had partly arisen from *md*) became *nn*, *n* in Umbr.-Samn. Umbr. *ponne pone* Osc. *pún* 'quom' fr. **pon-de*; Umbr. *pane* Osc. *pan* 'quam' = Lat. *quan-de*, see § 207. Umbr. *an-penes* 'impendes', *pihaner* 'piandi'. Osc. *úpsannam* 'operandam'. This change was older than that of *nt* to *nd* in Umbr. *ander* 'inter' (§ 499).

Umbr. *umen* 'unguen' fr. **umben*, § 432 a.

Rem. 3. The *l* in the Umbr. fut. ex. *en-telust* 'intenderit' and *a-pelus* 'impenderis' *a-pelust* 'impenderit' is unexplained. That the *l* goes back to *ndf* (Bücheler), is incredible to me; the composition of a participial stem **entendlo-* with *fust* (Bechtel Bezenb. Beitr. VII 7) is impossible.

Lat. *ll* fr. *dl* and *ld*. *sella* fr. **sedlā*. *sallō* fr. **saldō*. See § 369.

Loss of *d* before *i*, *u*. Lat. *Jov-is*, Umbr. *Iuṽ-e* Osc. *Iuv-eí* 'Jovi' : Skr. *dyāú-* Gr. Ζεύς. Concerning Osc. *zicolo-m* 'diem' see § 135 extr. Lat. *suāvi-s* fr. **syād-u-i-s* : Skr. fem. *svād-v-ī* 'suavis'.

Lat. *v* fr. *gu* = Indg. *g*. *vivo-s* : Osc. *bivus* 'vivi', Skr. *jīvā-s* etc. See § 432 b.

§ 507. Prim. Indg. *d'dh* became in prim. Ital. *zdh* — *sth* — *sþ* (§ 509), hence Lat. *st*. Thus *custōs* : *huzd* 'treasure', see § 469, 5, perhaps also *hasta* : Goth. *gazds* 'a prick'.

Rem. For Lat. *crēdō*, first of all from **crezdō* (cp. *pēdō* fr. **pezdō*, § 594), it would hardly be right to assume a **ġred^hdhē-*, even in Indg. since in Skr. the two members of the compound, **ġred* 'heart' and rt. *dhē*, were not yet fused into an inseparable unity (cp. e. g. *śrād asmāi dhatta* 'believe in him' ṛgv. II 12, 5). We must nevertheless start out from a prim. Ital. **cre(d)zdh-*, cp. § 521 on O.Ir. *cretim* 'credo'. It may be assumed that in Italic, as in Sanskrit, the feeling for the connexion with the other forms of rt. *dhē-* was not yet extinct, and that *d* for regular *p* was thus introduced after *con-dō ab-dō* etc. (cp. W. Meyer Kuhn's *Ztschr.* XXVIII 166), just as *nōbīs* stood for regular **nospīs* (§ 594).

§ 508. *l* from *d* in Lat. *lēvir* : Skr. *dēvár-* and others. See § 369.

ř, *rs* from *d* in Umbrian between vowels and finally, e. g. *te-řa di-rsa* 'det.' See § 369.

In Umbr. *muieto* 'muttitum' beside *mugatu* imper. 'muttito' (Lat. *mūgīnor* 'I murmur') *i* probably represents a voiced spirant. It may be conjectured that palatal vowels had a similar influence upon a preceding *g* as they had upon a preceding *k* (§ 502).

§ 509. The mediae aspiratae became tenues asp. in prim. Ital., then voiceless affricatae, and lastly voiceless spirants: *f*, *p̄*, *χ*, *χ^{*}*. Probably in the same period *p̄* was further shifted to *t* after *s* and the non-labialised *χ* to *h* except after and before nasals and before *r* and *l*.

This state of the form of articulation generally remained in Umbr.-Samn., whereas medially the spirants were developed to mediae in Lat.: *b* fr. *f* = older *f* (§ 338) *p̄* (§ 370) *χ^{*}* (§ 433c); *d* fr. *p̄* = older *p̄* (§ 370); *g* fr. *χ* = older *χ* (§§ 389. 430); *ngu* (ṛgv.) fr. *ṛχ^{*}* = older *ṛχ^{*}* (§ 433a)*; *gu* (whence *v*) between vowels from *χ^{*}* = older *χ^{*}* (§ 433b). Further, initially, *g* from *χ* before *r* (§ 430).

1. Initially.

Prim. Ital. *f* (Lat. Umbr.-Samn. *f*) = Indg. *bh*. Lat. *ferō*, Umbr. *ferar* 'feratur' Marruc. *feret* 'feret': Skr. *bhārāmi*. See § 338.

Prim. It. *f* (Lat. Umbr.-Samn. *f*) = Indg. *dh*. Lat. *fēlare*, Umbr. *feliuf* 'lactantes': Skr. *dhāyāmi*. See § 370.

Prim. Italic *h* (Lat. U.-S. *h*) = Indg. *gh gh* except before *r*. Lat. *humu-s*, Umbr. *hondra* Osc. *huntru* 'infra': Gr. *χαυαλ*, Indg. *gh-*. Lat. *hosti-s*: O.Bulg. *gostŭ*, Indg. *gh-*. A dialectical (Sabine) pronunciation of the *h* was represented by *f*: *folus*, *foſtis*. See §§ 389. 430.

Prim. It. *χr* (Lat. *gr*) = Indg. *ghr*. Lat. *gradior*: Goth. *grīdi-* O.Bulg. *grędą*. See § 430.

Prim. It. *f* (Lat. *f*) from *χ** = Indg. *gh*. Lat. *formu-s*: Skr. *gharmá-s*, Goth. *varmjan*. See § 433c.

2. Medially.

Prim. It. *f* (Lat. *b*, U.-S. *f*) = Indg. *bh*. Lat. *ti-bŭ*, Umbr. *te-fe* Osc. *t(i)-fei* 'tibi': Skr. *tú-bhyam*. See § 338.

Prim. It. *p* (Lat. *d*, Osc. *f*) = Indg. *dh* except before and after *r* (however in the combination *rph*), before *l* and after *u* (*u*), perhaps also after *m*. Lat. *mediu-s*, Osc. *mefiaí* 'in media': Skr. *mádhya-s*. See § 370.

Prim. It. *f* (Lat. *b*, U.-S. *f*) = Indg. *dh* before and after *r* (except the combination *rph*), before *l* and after *u* (*u*), perhaps also after *m*. Lat. *rubro-*, Umbr. *rufru* 'rubros': Gr. *ῥουθρό-ς*. See § 370.

Prim. It. *t* (Lat. *t*) fr. *p* = Indg. *dh* after *s*. Lat. *custōs*: Goth. *huzd*, Indg. **kud^hdh-*. See §§ 469, 5. 507. Cp. also Lat. *st* fr. *sp* = Indg. *sth* in *vīdisti* § 553.

Prim. It. *h* (Lat. U.-S. *h*) = Indg. *gh* except after and before nasals and before *l*. Lat. *vehō*, Osc. *vehia* 'plaustrum': Skr. *vāhāmi*. See § 389. This early weakening of *χ* to *h*, in this position, explains why the explosive *g* does not appear in Latin.

Prim. It. *χ* (Lat. *g*) = Indg. *gh* (*gh*) after and before nasals and before *l*. Lat. *lingō*: Skr. *lēhmi*, rt. *leiḡh-*. *mingō* beside *mējō* (§ 510). *māgnu-s* beside *mājor* (§ 510). *trāgula* fr. **trāglā* beside *trahō*. See § 389.

Rem. 1. The *g* (instead of *h*) in *magis* and *liguriō* was perhaps transferred from *māgnu-s* and *lingō*. But whence the *g* in *ad-āgiu-m prōd-igiū-m*, to *ājō* (§ 510)?

Prim. It. χ^* (Lat. *gu*) = Indg. *gh* after *æ*. Lat. *ninguit*: Lith. *smiñga*. See § 433 *a*.

Prim. It. χ^* (Lat. **gu*, whence *v*) = Indg. *gh* between sonantal vowels. Lat. *niv-em*: Gr. *νίψ-α*. See § 433 *b*.

Rem. 2. The forms *levi-s* (Skr. *laghú-ś*, Gr. *ἐλαχύ-ς*, Goth. *leihts*, Lith. *leñgv-as*) and *brevi-s* (Gr. *βραχύ-ς*) still remain obscure.

Prim. It. *f* (Lat. *b*, Praenest. *f*) fr. χ^* = Indg. *gh*. Lanuv. *nebrundin-es*, Praenest. *nefrōn-es*: Gr. *νεφρό-ς* OHG. *nioro*. See § 433 *c*.

§ 510. The fricative sound of *h* was reduced to a minimum in the Italic languages. In certain positions the sound was entirely dropped.

The weakness of articulation betrays itself in Latin through the doubt which existed as to where *h* should be written, and where not, e. g. *hālāre* for *alāre* (§ 208 p. 176), *ānser* for *hānser* (Gr. *χήν*).

h disappeared uniformly before *i*. *māior* fr. **mahīōr* (beside *māgnu-s*): Skr. *māhīyas-* 'greater'. *ājō* fr. **ahīō* or **ahīō* (beside *arāre* 'to call to, nominare'): Skr. *dha* 'he spoke'. Further, often between vowels, especially after *i*-vowels (accentual relations also formed a factor). *lien*: Skr. *plīhān-* 'spleen' Gr. *σπλάγχνον* 'entrails'. *mējō* probably from **meihō*: Skr. *mēhāmi* 'I make water'. *bīmu-s* fr. **bi-himu-s*. *nēmō* fr. **ne-hemō*. Further *nīl* = *nihil*, *prēndō* = *prehendō*, *praebeō* = *praehibeō*, *cōrs* = *cohors*, *prōbeō* = *prōhibeō* etc., which stand on a level with *dēsse* = *dēsse*, *coeptī* = *coēptī*.

Cp. also *diribeō* = *dis+habeo* with the same *r* from *s* as *dir-imō* etc. (§ 569).

The same fluctuation in the writing of *h*- exists in Umbr.-Samn. as in Lat. Umbr. *eretu* part. pass. to *heri* 'vult', conversely *he-* for *e-* 'ex' in *he-bet-af-e* beside *e-bet-raf-e* 'in exitus' (to Lat. *bastere*, cp. § 432 rem. 1). Osc. *Herukinaś* 'Erycinae', *Ἐρυκίνη*.

It was dropped medially in Osc. *mais* 'magis' *maimas* gen. 'maximae' beside *Mahii[s]* 'Magius'.

§ 511. In Lat. the *b*, *d*, *g*, which arose from voiceless spirants, underwent the same treatment as the corresponding original *mediae*. *grallae* 'stilts' fr. **grad-lae*, see § 369. *amni-s* fr. **abni-s*, along with O.Ir. *abann* 'river' is probably to be connected with Skr. *abhrá-* 'thunder-cloud'; *Samniu-m* beside *Sabínu-s* Osc. Safinim 'Samnitium', see § 506.

Old Irish.

§ 512. The *tenues* except *p* were generally retained in prim. Kelt. *p* disappeared at that period in all positions except before consonants and before consonants it became a spirant.

t, *c* appear in Irish as the successors of prim. Kelt. *t*, *k* *kʷ* (Indg. *t*, *k* *q*) in absolute initiality and after spirants and *r*, *l*.

temen 'dark-gray': Skr. *támas-*. *tiagaim* 'I stride, go': Gr. *στεῖχω*, rt. *steigh-*. *ocht* 'eight': Gr. *ὀκτώ*. *t*-pret. *al-t* 'educavit'. See § 371.

críde 'heart': Lith. *szirdì-s*. *cara* 'friend': Lett. *kárs*. *cethir* 'four': Gall. *petor-ritum*, Skr. *catvār-as*. *scáth* 'shadow': Goth. *skadu-s*. *iasc* 'fish' (*a*-stem): Lat. *pisci-s* Goth. *fiska-*. *ro sescaind* 'he leapt': Skr. *caskánda*. *scél* 'narration, tidings': Cymr. *chuwedl* fr. prim. Kelt. **skʷe-tlo-n* (Cymr. *chw-* first fr. **skʷ-*), rt. *seq-* 'say'. *sesc* 'barren': Cymr. *hysp* 'dry, withered', Lat. *siccus* (cp. § 516). *ad-con-darc* 'I saw': Skr. *dadárśa*, rt. *derk-*. *orc* 'pig': Lith. *pařsza-s*, cpf. **porko-s*. See §§ 390. 434. 436.

§ 513. *t*, *c* became voiced *mediae* after nasals, then the nasal disappeared (with compensation lengthening). The letters *t*, *c* were retained in the O.Ir. period. It was not until a later period that the orthography was set straight by the introduction of *d*, *g*. *cét* 'hundred': Cymr. *cant*, Lat. *centu-m*. *ōac* *ōc* 'young': Cymr. *ieuanc*, Lat. *juvencu-s*. See § 212.

§ 514. After vowels *t* *c* became *þ*, *χ*, which were written *th*, *ch*. Hence *ð*, *ʒ* in unaccented syllables (except finally). These were written *d*, *g*, like the voiced spirants which had arisen from original *mediae* (§ 522). *d*, *g* however occur consistently only for the palatalised *ð*, *ʒ*.

máthir 'mother' : Lat. *māter*. *cath* 'fight' : Gall. *catu-* (in prop. names), OHG. *hadu-* 'fight'. *cloth* 'renowned' : Gr. *κλυτός*. 2. pl. *carthe*, no *charid*, to *caraim* 'I love'; cp. the personal endings Gr. *-τε* Lat. *-tis*. 3. sg. pass. *car-thir* 'amatur' *mididir* 'iudicatur' : cp. Lat. *-tur*. *beothu* 'life' gen. *bethad* dat. *bethid*, suffix **-tūt-* : Lat. *-tūt-*.

fiche 'twenty' : O.Cymr. *uceint*, Skr. *viṣati-*. *sechur* 'sequor' rt. *seq-*. *marc-ach* 'equester' : Cymr. *march-awc*, Gall. *Ben-ācu-s*; *cumacht-ach* 'potens', 1. sg. *cumacht-aigim* 'potior'. *cathr-ach* gen., *cathr-aig* acc., to nom. *cathir* 'town'.

On the like origin of voiceless spirants in conditional initiality, e. g. *a thuath* 'O folk', see § 658, 1.

Rem. 1. On *mac* 'son', *mucc* 'pig', *cacc* 'dirt', *lēcim* 'I leave', whose 'status durus' is remarkable, see § 436 rem.

Rem. 2. The spirants of the prepositions *aith-* 'against' (Gall. *ati-*) and *frith-* 'towards' became assimilated to the initial consonant of the following word, when the preposition had the chief accent. *tht* to *tt*: *ní frittāit* 'non obsistunt'. *thc* to *cc* (*c*): *teccmnocuir* 'accidit' fr. **to-aith-com-nocuir*, *frendairc* 'present' fr. **frith-con-dairc*. *thg* to *gg* (written *c* or *cc*, cp. § 519): *frecre* 'responsum' from **frith-gaire*, *ēcne* 'cognitio, sapientia' fr. **aith-gne* (cp. Thurneysen *Revue Celt.* VI 320), *taccair tacair* 'congruus, decens' fr. **to-ath-gair*. *thb* to *bb* (written *p*, cp. §§ 519. 524): *epert* 'speech' fr. **aith-bert*.

§ 515. *pt* probably became *cht* even in prim. Kelt. O.Ir. *secht* Mid.Cymr. *seith* 'seven' : Lat. *septem*. See § 339.

Indg. *pn* in O.Ir. *suan* Cymr. *hun* 'sleep' : Skr. *svāpna-s* Gr. *ὑπνο-ς* etc. It is highly probable that *p* was here also no longer an explosive in prim. Kelt., see § 339 rem.

§ 516. *tk* became *sk* in Kelt. O.Ir. *sesc* 'barren' Cymr. *hysp* 'dry', fr. **siskyo-s* : Lat. *siccu-s*, orig. form **sitqo-s*. O.Ir. *mesc* 'intoxicating, drunk' : Skr. *māda-* drunkenness'. *lesc* 'piger' : Goth. *lats* 'lazy'. *uisce* 'water' : Skr. *udán-udaká-* 'water'. Here belongs also O.Ir. *brisc* Bret. *bresk* 'brittle', in case it comes from the rt. *bherdh-*, § 298. Cp. Av. *ḫk*, *sc* from prim. Ar. *tk*, *tc* § 473, 2 and Germ. *sk* fr. *tk* § 527. From the Gallic belong perhaps also here *Pruscia Prūdca* (d'Arbois de Jubainville *Études grammaticales sur les langues celtiques* I p. 31* ff.).

The Ð in the latter form denotes here, as also elsewhere, a voiceless spirant.

ss (whence further also s) from ts in the prim. Kelt. period. O.Ir. 1. pl. of the s-fut. *messimír* to *midiur* 'I judge'. Fut. *ro-fessur* 'I shall know', rt. *ueǵd-*. Future stem *sēs-* fr. **syents-* i. e. **syend+s-* (*syend-* 'drive, hunt') 1. sg. *cu-du-sē[s]-sa*, fut. sec. 1. sg. *du-sēsainm* (Thurneysen Kuhn's Ztschr. XXVIII 148).

ss from *t't*. inf. *mess* 'a judging', orig. form **met'tu-* i. e. *med+tu-*. Inf. *fiss* 'a knowing' i. e. **yid+tu*. It is uncertain whether this change be prim. Kelt., because of the Gallic spellings with Ð, as MEÐÐVLVS beside *Messulus* (to O.Ir. *mess*).

O.Ir. -ss- fr. -st-. *ro chloss* 'was heard' fr. **klus-to-*, *cluas* 'ear' fr. **kleys-tā-* or **kloy-s-tā-*, to *cloor* 'I hear', cp. Skr. *śruṣ-ṭi-ṣ* 'compliance', OHG. *hlos-ēn* 'to listen' OS. *hlus-t* 'a hearing', O.Bulg. *sluchŭ* 'a hearing'. *ais aes* (gen. *aisso aisa*) 'age' fr. **āyēs-tu-*: cp. Gr. *αἰές* 'always'. *is* 'is': Gr. *ἔστι*. *tair-issiur* 'I stand, stand still', *sessam* 'a standing': Gr. *ἵσταναι* 'I place', Lat. *sisto*.

§ 517. *kt* became *cht* (*χt*) in prim. Kelt. O.Ir. *ocht* Cymr. *wyth* Corn. *eath* Bret. *eiz* 'eight': Skr. *aṣṭā*, Gr. *ὀκτώ*. *recht* 'law' *as-r-ēracht* 'surrexit': Lat. *rēctus*, rt. *reǵ-*. *ro iar-facht* 'he asked' (pres. *iarmi-foig* 'he asks'): Gr. *ἔρω*, Lat. *vōx*, rt. *ueq-*. *in-nocht* 'hac nocte': Lith. *naktis*.

Rem. *ct* was often written instead of *cht* in O.Ir.: *oct rect* etc. That *cht* (*χt*) was nevertheless spoken, is shown by Thurneysen Keltoromanisches p. 14 f, where the stage *cht* is also found for Gallic in the name *Luxterios* on coins (written *Luclerius* in Caesar).

ks = O.Ir. *ss*, *s*, Brit. *ch*, prim. Kelt. probably *chs* (*χs*). O.Ir. *sessad* O.Cymr. *chuechet* 'sextus': Gr. *ἕξ*, orig. f. **syēks*. O.Ir. *dess* Cymr. *deheu* 'dexter': Goth. *taihswa*, Indg. **deks-* O.Ir. *ōs uas* Cymr. *uch* 'above': Lith. *duksz-ta-s* 'high', rt. *auǵ-*. *no tes* 'effugiam' s-fut. to *techim* 'fugio', Lith. *tekù* 'I run', rt. *teg-*. *x*, *xs*, probably to be read as *χs*, appears in Gall. : *Uxello-dūnum* 'Hightown', to O.Ir. *ōs uas*; *Dexsiva*, to O.Ir. *dess*.

§ 518. *t* and *c* were dropped before liquids and nasals (with 'compensation lengthening' after short vowels, § 620). *cenēl* 'race': O.Cymr. *ceneth*, suffix -*tlo-* (§ 110 p. 104). *anal* 'breath':

Cymr. *anadl*, prim. Kelt. **anatla*. *dāl* 'a meeting together' : O.Cymr. *datl* 'forum'. *ēn* 'bird' : O.Bret. *etn*, rt. *pet-* 'fly'. *dēr* 'tear' : O.Bret. *dacr* Gr. *δάκρυ*. Reduplic. fut. 1. sg. *cēl*, to *celim* 'I conceal'. Cp. also *suan* 'sleep' § 339 rem.

rct (*rcht*) was simplified to *rt* : *ro ort* 'delevit', part. *timm-orte* 'compressus', to *orgun* 'occisio' (rt. *ergh-*, cp. § 552).

Correspondingly *rcs* to *rs*, whence *rr* (cp. § 574) : 3. sg. of the *s*-fut. *orr*, of the same verb.

§ 519. The *mediae* generally preserved their form of articulation in prim. Kelt. In O.Ir. they remained *mediae* in absolute initiality likewise after *r* and *l*, *g* also after nasals. These medial *mediae* were also written (*bb*), *dd*, *gg* or (*p*), *t*, *c* after *r* and *l*, in order to indicate that they were not to be spoken as spirants (§ 522) ¹).

d. *dēr* 'tear' : O.Bret. *dacr*, Gr. *δάκρυ*. *cerd cerdd cert* 'artist, smith' : Cymr. *cerdd* 'art', Gr. *κέρδος* 'gain', Lat. *cerdō* 'workman'. See § 372.

ġ, *g*. *gein* 'birth' : Cymr. *geni*, Skr. *jan-* Av. *zan-*, rt. *ġen-*. *ġair* 'call' : Cymr. *gawr*, Skr. *gir-*, rt. *gar-*. *biu* 'alive' : Cymr. *byw*, Goth. *gius* Lith. *gyva-s*, Indg. **gǵ-uo-s*. *garg gargg* 'rough, wild' : Gr. *γοργός* 'spirited, wild'. *serg sergg serc* 'a passing away, decay, illness' : according to Windisch to OS. *swercan* 'to become obscure, gloomy'. *ferg ferc* 'anger' : Gr. *ὄργη* 'impulse, feeling, disposition'. *bongaim* 'I break, reap' : Skr. *babhānja* 'he broke'. See §§ 391. 434. 437.

g remained also after *d* = Indg. *z*, see § 521.

§ 520. The media *d* in the prep. *ad-* = Lat. *ad* was assimilated to a following voiceless consonant, e. g. *-acciu* 'I see' fr. *ad+ciu*.

mb, *nd* became *mm*, *nn*. The O.Ir. monuments frequently preserve *mb*, *nd* beside *mm*, *nn*, probably contrary to the then living pronunciation. *cam* 'crooked' : Cymr. *cam* 'crooked' Bret. *kamm* 'crooked' Gall. *cambo-*, Gr. *καμβός*

¹) An example for *b*, *bb*, *p* = Indg. *b* is wanting. But cp. *orbe* with Indg. *bh* § 524.

'crooked'. *ro se-scaind* 'he leapt' : Lat. *scandō*, Skr. *skānd-a-mi*. *cenn cend* 'head, top, point' : Cymr. *penn pen* Corn. *pen*, prim. Kelt. **kyindo-*, according to Windisch (Kuhn-Schleicher's Beitr. VIII 44) to Skr. *śvi-* 'to swell' and identical with Gr. *Πνδο-ς*. *mennant mendat* Mid.Ir. 'dwelling' : Skr. *mandirā-m* 'lodging, habitation'. Cp. § 525.

Ir. *mn* from *bn* (= Indg. *bn*, *gn*). *fu-domain* 'deep', compar. *fu-dumnu* : Cymr. *dwfn* 'deep', Goth. *diups* Lith. *dubù-s* 'deep', rt. *dheyb-* (§ 325); with these is said to be related O.Ir. *domun* 'world', Gall. *Dumno-rīx*, older *Dubno-rīx*. *mnā* fr. **bnās*, gen. to *ben* 'woman', Indg. stem form **gnā-* **genā-*, see §§ 428 a. 437 a.

§ 521. O.Ir. *net nett* Cymr. *nyth* 'nest' fr. Indg. **nizdo-* through the intermediate stage **neđdo-*. Cp. *medg* Cymr. *maidd* 'whey', fr. **međgā*, older **mezgā*, Gallo-Lat. *mesga* 'whey', according to Thurneysen Kuhn's Ztschr. XXVIII 152 to Slav. *mozgŭ* etc., hence uncertain, whether Indg. *zg* or *zgh* (§ 450). See § 595.

It seems to follow from Cymr. *credu* that Indg. **kred dhē-*, which is to be presupposed for *cretim* 'credo' and the Skr. and Lat. related forms (§ 507 rem.), had not passed through **kredzd-* to **krezd-* in prim. Kelt., but that the nearest older form **kredd-* rather came direct from **kred d(h)-*.

Here may further be mentioned *ro-fetar* 'I have experienced, know' fr. rt. *ueid-*, which Thurneysen Kuhn's Ztschr. XXVII 174, XXVIII 151 regards as an *s*-aorist : **uīdes-ar* gave rise to **fedšar* (§ 634), and this to *fetar*, since *d* remained an explosive before *s*, or *h* (§ 576).

§ 522. *b*, *d*, *g* became spirants after vowels : *ḃ*, *ḋ*, *ḡ*. The letters *b*, *d*, *g* were generally retained for these (*bh*, *dh*, *gh* in the modern orthography), on the other hand a double media or tenuis was written in cases where the sound had remained explosive (§ 519). *ph* *f*, *th*, *ch* were more seldom used to express *ḃ*, *ḋ*, *ḡ* (Zeuss-Ebel Gr. C. p. 62 sq.).

b. *ebaim* 'I drink' : Skr. *pībāmi*. See § 340.

d. *cride* 'heart' : Gr. Ion. *ᾠαδ-ίη*. *adfiadaim* 'I announce' : Skr. *vēdayāmi*. See § 372.

ġ, *g*. Imper. *agat* 'agant': Lat. *agō*, rt. *aġ*-. Gen. *tige* 'of a house': Gr. *στῆγος*, rt. *steg*-. See §§ 391. 434.

These voiced spirants probably became voiceless when final, cp. *tech* beside *teg*, *camaiph* beside *cammaib* 'notwithstanding' etc.

On the spirantal pronunciation of *b*, *d*, *g* in conditional initiality see § 658, 1.

§ 523. Loss of *d*, *g* (with 'compensation lengthening' after short vowels) before liquids and nasals. *ar* 'battle, slaughter, butchery': Cymr. *aer* fr. **agro*-, to O.Ir. *ag* (gen. *aga*) 'battle', Gr. *ἀγών*, rt. *aġ*-. *ām* 'manus hostium' fr. **agmen* or **āgmen*: Lat. *agmen ex-āmen*, rt. *aġ*- (cp. § 506). Perf. *ro gēnar* 'natus sum' fr. **ge-gn*-, rt. *ġen*-. *uan* 'lamb': Cymr. *oen*, Lat. *agnus* with Indg. *g*, see § 437 c.

ng = Indg. *ŋg* had been dropped before *n* in *buain* 'a harvesting, reaping', inf. to *bongaím* 'I break, reap' (§ 519).

Assimilation of *ng* to following *m* with lengthening of the preceding vowel. *cēimm* 'a striding, step', to *cingim* 'I stride' (to Gr. *σάζω* 'I limp'?). Analogously *grēimm* 'progressus', to *in-grennim* 'I pursue' fr. *grend*- with original *dh*, § 526.

§ 524. The *mediae aspiratae* fell together with the *mediae* in prim. Keltic, as in Iranian (§ 481) and in Baltic-Slavonic (§§ 542. 549). The laws, which obtain for the Indg. *mediae* (§§ 519—523), thus operated here also.

Media appears initially after *r* and *l*, *g* also after *n* (ʔ):

bh. *biu* 'sum': Lat. *fīō*, rt. *bheū*-. *orbe orbbe orpe* 'hereditas': Goth. *arbi* 'heritage', Gr. *ὀρφανός* 'left, orphan'. See § 341.

dh. *dī-th* Mid.Ir. 'he sucked': Skr. *dhāyāmi*. *ard ardd art* 'high, great, noble', to which probably also *Arduenna silva*: Skr. *ūrdhvā-s*. *meld-ach mell-t-ach* 'acceptus, gratus': OS. *mildi* 'mild, kind, gracious'. See § 373.

ġh, *gh*. *gam* 'winter': Lith. *žemà*. *in-grennim* 'I pursue': O.Bulg. *grędą* 'I come'. *orgun orggun orcun* 'a laying waste, devastating, killing, predatory excursion', Gall. *Orgeto-rīx*: Skr. *rghāyati* 'trembles with passion, rages, raves', OHG. *arg* 'that which is worthless, vile, bad'. *cum-ung* 'narrow': Gr. *ἄγχι*, rt. *añġh*-. *esc-ung* 'eel': Lat. *angui-s*. See §§ 392. 434. 438.

§ 525. Ir. *mm*, *nn* from *mb*, *nd* = Indg. *mbh*, *ndh*, cp. § 520. *imm*, *imb* 'about, around': Gall. *ambi*-, Gr. ἀμφί. *immlind* 'umbilicum': Gr. ὀμφαλό-ς Lat. *umbilicu*-s. *in-grennim* 'I pursue': O.Bulg. *gręda* Goth. *gridi*-. It is doubtful whether *bonn bond* 'solea' belongs here or to § 520, since this word seems to have had in prim. Indg. partly *dh* (Skr. *budhná*-s) and partly *d* (Gr. πύνδαξ) (§ 469, 8). *mm* fr. *mb* = Indg. *ǵgh* in *imm imb* 'butter', see § 438 *b*.

A sure example for *mn* fr. *bn* = Indg. *bhn* (or *ghn*) is unknown to me. *tamun* 'stem' may belong to Skr. *stambh*-, with which it is generally connected, but the root had in prim. Indg. partly *bh*, and partly *b* (see § 469, 8), besides we probably ought to start out here from an original *mb(h)n* (cp. *buain* with *ǵgn* § 523).

To the form *net* 'nest' (§ 521) corresponds *brot* 'prick' fr. prim. Kelt. **brozdo*-s, the *d* of which was Indg. *dh*, as is shown by Ags. *brord* O.Icel. *broddr* 'prick'. See § 595.

§ 526. *b*, *d*, *g* as spirants, cp. § 522.

bh. *tri-b* 'tribus': Skr. *-bhiṣ*. See § 341.

dh. *riad* 'a riding': O.Icel. *rīða*. See § 373.

gh, *gh*. *ligur* 'tongue': Lith. *lēžiù*, rt. *leiǵh*-. *lige* 'bed': O.Bulg. *lēga*, rt. *leg*h-. *snigid* 'it drops': Gr. νίφει, rt. *sneiǵh*-. See §§ 392. 434. 438.

Dropping of *b*, *g*, as in § 523. Reduplic. fut. *do-bēr* (*do-biur* 'I give', rt. *bher*- 'carry, bear') fr. **bebr*-. *nēl* 'cloud' fr. **neblo*-: OHG. *nebul* O.Icel. *nífl*-, Gr. νεφέλη. *fēn* 'waggon, cart': O.Icel. *vagn* 'waggon', rt. *ǵeǵh*-.
grēimm fr. **grend-men* has already been mentioned in § 523.

Germanic.

§ 527. History of the *tenues*.

p, *k* (*kʷ*) before *t* and *s* became *f*, *χ* (*χ**) in prim. Germ. similarly as in Iran. (§ 473), Umbr.-Samn. (§ 502) and Keltic (§§ 339. 515. 517¹).

1) Cp. also Mod.Gr. ἑφτά κόφτω, ὀχτώ νύχτα.

Goth. *hliftu-s* 'thief' : Gr. κλέπτης. OHG. *nift* 'neptis', privigna' : Lat. *nepti-s*. OHG. *wafsa* 'wasp' : Lith. *vapsà* 'horse-fly', O.Bulg. *vosa* 'wasp' fr. **uopsa* (§ 545). OHG. *refsan* 'to scourge, punish, blame', O.Icel. *refsa*, prim. Germ. **rafsjana-n* : Skr. *rāpas-* n. 'bodily injury, violation'.

Goth. *raihts* OHG. *reht* 'right' : Gr. ὀρθρός 'stretched out', cpf. **rektó-s*, rt. *reġ-*. Goth. *nahts* OHG. *naht* 'night' : Lat. *nox noctis* etc., orig. f. **noqli-* **noqt-*. Goth. *fimfta-* 'quintus' : Gr. πέμπτος, see § 444 a. e. Goth. *saihts* OHG. *sehs* 'six' : Gr. ἕξ, cpf. **sueks*.

Rem. 1. Goth. *niþji-s* 'cousin, relation', O.Icel. *niðr* 'descendant' pl. *niðjar*, Ags. *niððas* pl. 'homines' fr. prim. Germ. **niþja-* and this from **ne(p)tiō-* in consequence of the combination of three consonants. Similarly Ved. dat. abl. pl. *nādbhyas* from **nabd-bhyas* i. e. **napt-bhyas*.

The shifting of *ts* and *tþt* began simultaneously or even earlier; we put the latter for the prim. Germ. period in place of *tʰt*, see § 469, 4.

ts became *ss*, *s*. OHG. OS. *wissun* O.Icel. *visso vissu* (Goth. *vissēdun*) 'they knew', probably to Hom. ἴσαν, cpf. **uitsŋt* i. e. **uid+s+ŋt* (Osthoff Zur Gesch. d. Perf. 398. 561). OHG. *zan* 'tooth' fr. prim. Germ. **tans*, Indg. **dont-s*, cp. Skr. *dán* fr. **dants* (§ 647, 7), Gr. ὀδούς. Cp. also Goth. *ana-busns* 'command' fr. **butsni-*, to *ana-biudan* 'to bid, command', rt. *bheudh-* (§ 552).

tþt became *ss* except before *r*, whence *s* after a long syllable. Goth. *ga-qissi-* (nom. *ga-qiss*) 'agreement', to *qiþan*. Goth. *us-viss* 'unbound', to *viþan*. OHG. *gi-wis* 'certain, sure' adv. *gi-wisso* : Gr. ἄωρος 'unseen, unknown', cpf. **uit'tó-s* i. e. **uid+to-*, rt. *ueid-*. Ags. O.Icel. *sess* m. 'seat' : part. Skr. *sattá-* Av. *hasta-* Lat. *ob-sessu-s*, Indg. **set'tó-s*, rt. *sed-*. Goth. *missa-* in *missa-dēps* 'misdeed', OHG. *missen* O.Icel. *missa* 'to miss', to OHG. *mīdan* 'to avoid, intermit' : Lat. *mitto* fr. **mītō* (§ 612), part. *missus*.

s from *ss* after long syllables. Goth. *un-veis* (gen. *-veisis*) 'unknowing', OHG. *wīs* O.Icel. *vīs-s* 'wise' : Lat. *vīsu-s*, orig. form **uit'to-s*, rt. *ueid-*. OHG. *as* n. 'carrion' : Lat. *ēsu-m*, orig. f. **et'to-*, rt. *ed-* 'eat'.

The proper names *Chattus* (with Lat. ending) OHG. *Hassi Hasso* (to Skr. *śad-* 'to distinguish oneself', Gr. Dor. *κεκαδμένος*?) and Lango-Bard. *Tatto Tasso* i. e. 'regulator, distributor' (Goth. *ungatass* 'disordered' Ags. *tass* 'acervus, congeries frugum', Gr. *δατέομαι*) seem to show that *tþt* had become *ss*, *s* through the intermediate stage *tþ*.

st arose before *r*. Goth. *blōstreis* 'sacrificer' OHG. *bluostar* 'sacrifice', to Goth. *blōtan* 'to sacrifice'. Ags. *fōstor* O.Icel. *fōstr* 'maintenance, support', to Goth. *fōdjan* 'to feed, nourish', Gr. *πατέομαι* 'I eat'. The course of development seems to have been *tþt*, *þt*, *st*.

Rem. 2. The Lat. development (cp. § 501 rem. 3) renders it improbable that the course was *ssr*, *sr*, *str* (cp. § 580), as is assumed by Kluge Paul-Braune's Beitr. IX 150. 157.

Rem. 3. Where *st* occurs in other positions than before *r*, they are new formations, e. g. Goth. *kāupasta* pret. of *kāupatjan* 'to box one's ears', OHG. *wista* beside *wissa* 'I knew', *wurst* 'sausage' from rt. *uert-* 'turn' (after *virlust* 'loss' etc.). Cp. § 501 rem. 2.

tk became *sk* (cp. § 516). OHG. *rasc* 'quick, active, strong' O.Icel. *rōskr* 'bold, brave' (Goth. **rasqs*), prim. Germ. **raskya-z* fr. **ratkya-z*, to OHG. *rad* 'wheel'; O.Icel. *lōskr* 'soft, slack, loose', prim. Germ. **latkya-z*, to Goth. *lats* 'weary'; on the suffix *-kya-* = Indg. *-go-* cp. § 419. OHG. Ags. *horsc* 'quick, smart, prudent' O.Icel. *horskr* 'prudent, wise' Goth. *and-hruskan* 'to investigate, examine', probably to Goth. *hard-u-s* 'hard' Gr. *χατ-ύ-ς* 'strong', orig. form **krt-ko-*, cp. also Mid.English *harsk* Dan. *harsk* 'rough, hard'. O.Icel. *beiskr* 'sharp', to Goth. *bait-ra-* 'biting, bitter'. Here probably also Ags. *tusc* or *tūsc* 'tusk, tooth' (see Kluge Paul-Braune's Beitr. VIII 537) = Goth. **tunska-*, with which Skr. *a-datka-* 'toothless' may be compared, although this was a Skr. new formation.

h had disappeared in OHG. before *s*+consonant. *mist* 'dung': Goth. *mahtstu-s*. *wast* 'growth': Goth. *vahsts*. Cp. Kögel Paul-Braun's Beitr. VII 193 ff.

§ 528. A general shifting of the still remaining *tenuēs* to voiceless spirants, e. g. Indg. **pātér-* 'father' to **fapér-*, and **péku* 'cattle' to **féxu*, probably did not take place until after

the *tenues* had modified their original manner of articulation in the position before *t*, *s* (*þ*) and *k* (§ 527).

The only exception to this law is that the *tenues* stood in combination with preceding spirants: *sp*, *st* (= Indg. *st* and = Indg. *t't* before *r*, see § 527), *ft* (= Indg. *pt* and *qt*, see § 527), *xt* (= Indg. *kt* and *qt*, see § 527), *sk* (= Indg. *sk̃*, *sq* and Indg. *tq*, see § 527). Cp.:

Goth. *speivan* OHG. *spīwan* 'to vomit': Lith. *spīduju* etc., see § 342. Goth. OHG. *ist* 'is': Gr. ἔστι, Indg. **és-ti*. Goth. *ga-kusts* 'a trying, testing': Skr. *jūṣṭi-ṣ*, Indg. **gus-ti-s*. Goth. *blōstreis* 'sacrificer' OHG. *bluostar* 'sacrifice, offering' with *str* = Indg. *t'tr*. Goth. *hliftu-s* 'thief': Gr. κλέπτης. Goth. *fimfta* 'quintus': Gr. πέμπτο-ς, Indg. **penqto-s*. Goth. *rahts* OHG. *reht* 'right': Gr. ὀρθρός, cfp. **rehto-s*. Goth. *nahts* OHG. *naht* 'night': Lith. *nakti-s*, Indg. **noqti-s*. Goth. *skeinan* OHG. *scīnan* 'to shine': Gr. σκιά, weak rt. form *skī-*, see § 393. Goth. *us-skava-* 'considerate, sober', OHG. *scouwōn* 'to look, see': Skr. *kav-i-ṣ* 'seer, teacher' weak rt. form *sqū-*, see §§ 439. 589, 3. O.Icel. *lqskr* 'soft, tender, slack', orig. f. **lat-go-s*, rt. *lād-*, see § 527.

Rem. 1. The combination *skl-* probably lost its *k* already in the prim. Germ. period. OHG. *sliozan* 'to shut' O.S. *slutil* 'key': Gr. κληίς etc., see § 425.

Rem. 2. *sd*, *fd*, *hd* are also written for medial *st*, *ft*, *ht* in OHG. Franconian monuments. See Kögel *Üb. d. Keron. Glossar* p. 70 f., *Zu den Murbacher Denkm.* (Leipz. 1883) 13 ff. On the value of the spellings *sg*, *sch* beside *sk*, *sc* see Kögel in the first named treatise p. 93, Braune *Ahd. Gramm.* p. 127.

It is however quite possible that the *tenues* first underwent the same affection after spirants as in other cases and then after that became explosives again; that is Indg. **ésti* became **isþi* and then **isti* (Goth. *ist*). Cp. 2. sg. *last* (*lisan* 'to collect, gather') fr. **las-þa* (§ 541, 7), OHG. *cumft* fr. **kumfþi-* (§§ 214. 529) and Goth. *huzd* 'treasure' fr. **huzða-n* (§ 538).

§ 529. The voiceless spirants in **faþér-* 'father' etc., which had arisen according to § 528, remained voiceless spirants initially in prim. Germ., and also medially if the sonant next preceding

received the principal accent (according to the old Indg. accentuation, § 686). The fricative sound of χ was reduced initially before vowels, and perhaps also medially under certain circumstances (not before consonants).

Gothic.

Initially. *fadar* 'father' : Lat. *pater*. *fōt-u-s* 'foot' : Lat. *pēs*. *pat-a* 'that' : Gr. *τό*. *ḡaha* 'I am silent' : Lat. *taceō*. *hund* 'hundred' : Skr. *śatá-m*. *haiŕtō* 'heart' : Lith. *szirdì-s*. *háidu-s* 'way, manner' : Skr. *kētú-ṣ*. *hlifa* 'I steal' : Pruss. *au-klipts*. *hva-s* 'who' : Skr. *ká-s*.

Medially. *uf* 'under' : Skr. *úpa*, Indg. **úpo*. *brōþar* 'brother' : Skr. *bhrātar-*, Indg. **bhrātor-*. *vairþa* 'I become' : Skr. *vartāmi*, Indg. **uértō*. *faihu* 'cattle' : Skr. *páśu*, Indg. **péku*. *svaihra* 'father-in-law' : Skr. *śváśura-s*, Indg. **syékuro-s*. *saihvā* 'I see' : Skr. *sácatē*, Indg. 3. sg. mid. **ségetai*. *vulfs* 'wolf' : Skr. *vṛka-s*, Indg. **uḷgo-s*. See §§ 342. 374. 393. 439. 440. 441. 444 a.

German.

f remained. OHG. *fater* 'father'. OHG. *nefo*, cp. Ags. *nefa* O.Icel. *nefe nefi* 'relation, nephew' : Skr. *nápāt* 'descendant', Indg. **népōt-*.

þ became *ǣ*, this remained down to the time of the OHG. monuments, and was represented by *th* (more rarely *dh*). In the course of the OHG. period however it was developed to *d* in different parts at different times (first in Bavaria during the eighth century). OHG. *thorn dorn* : Goth. *þairnu-s*, O.Bulg. *trīnū*. OHG. *bruother bruoder* 'brother'.

The letter *h* appears for prim. Germ. χ in HG., as in Goth. The sound was merely an aspirate in every case initially, and medially certainly at least between vowels. OHG. *hunt* 'hundred'. OHG. *fahan* 'to catch' : Goth. *fahan*, prim. Germ. **fan̥xana-n* (cp. § 214 p. 182). The *h* in initial *hw*, *hr*, *hl*, *hn* disappeared from the eighth century onwards, earliest in *hw*, e. g. *hwaz waz* 'what' : Goth. *hva*; *hliumunt liumunt* 'renown' : Goth. *hluma* m.

'hearing', rt. *kley-*. Spellings like *Chlodovichus* (*Hludwig*) show that the value χ still prevailed in the fifth and sixth centuries.

West Germanic consonant lengthening (gemination) through following *i*. OHG *heffen* OS. *hebbian* 'to raise': Goth. *hafjan*, Lat. *capiō*. OHG. *hlahhen* Ags. *hliehhan* 'to laugh': Goth. *hlahjan*. Cp. §§ 532. 535. 540 and the similar doubling of nasals and *l* §§ 216. 277.

mþ seems to have become *mfp* *mft*. OHG. *cumft* 'a coming' (Goth. *ga-qumþi-*), *numft* 'a taking', *ramft* 'edge', MHG. *brunft* 'rutting time of the red-deer' (*nf* from *mf*). Cp. §§ 214. 528.

Rem. In like manner perhaps *nþ* became *nsþ*, *nst*: OHG. *kunst* 'art', cp. Goth. *kunþi* 'knowledge'. Doubts remain because of Goth. *anþur*: OHG. *ander*. On the *s* in Goth. *anstis* etc. see Kluge Paul-Braune's Beitr. IX 154 f.

§ 530. Medial *f*, *þ*, χ (χ^u) became *b*, *d*, \mathfrak{z} (\mathfrak{z}^u) in prim. Germ. — and at the same time *s* became *z* (§ 581) —, when the next preceding sonant did not have the principal accent (§ 529) or *t*, *s* directly followed (§ 527). This phenomenon is called 'Verner's law' (see Kuhn's Ztschr. XXIII 97 ff.). The Indg. *tenues*, which were thus affected, fell together with Indg. *bh*, *dh*, *gh*, *gh* (§ 538) and underwent all further developments in common with these.

b, *d*, \mathfrak{z} (\mathfrak{z}^u) became *b*, *d*, *g* (*gu*) after nasals, very probably in the prim. Germ. period, and $\mathfrak{z}u$ became *u* after vowels (§ 444 c).

These voiced spirants also became *mediae* after *r*, *l* in Gothic, while in other cases they remained spirants, but were not distinguished from *mediae* in writing.

The West Germanic dialects changed every other remaining *d̃* to *d*. Then in Upper Germany and East Franconia *d* became *t* (which partly suffered further affections that need not be taken into consideration here), elsewhere it remained. *b̃* and \mathfrak{z} became *b* and *g* in HG. (while they remained spirants in other West Germ. dialects), and these became *p* and *k* in Upper Germany, but not universally.

p. Prim. Germ. **lībō* fr. **lifō* 'I adhere, remain' (rt. *leip-*, cp. Skr. *limpāmi* Lith. *limpū*): Goth. *bi-leiba* (*b̃*), OHG. *bi-libu*

Ags. *be-līfe* (*f* is to be read as *b*). OHG. *uoba* 'festival' *uobo* 'colonus', to Skr. *āpas-* 'religious work' Lat. *opus*.

t. Prim. Germ. **faðēr-* fr. **faþér-* 'father' (Skr. *pitár-*, Gr. *πατήρ-*) : Gr. *fadar* (*ð*), OHG. *fater fader* OS. *fader* Ags. *fæder* O.Icel. *faðer faðir*. Goth. *háidu-s* (*ð*) 'way, manner', OHG. *heit heid* : Skr. *kētú-ṣ*. Goth. *ga-tami-da-* (*ð*) 'tamed', OHG. *gi-zemit gi-zemid* : cp. Skr. *dami-tá-* Lat. *domi-tu-s*. Prim. Germ. **χumðá-m* 'hundred' (whence **χumda-m*, further **χunda-m*) fr. **χumþá-m* (Skr. *śatá-m*, Indg. **kṛtá-m*) : Goth. *hunda-*, OHG. *hunt hund* OS. Ags. *hund* O.Icel. *hund-rað*. Goth. *mun-da-* 'believed' *ga-mundi-* 'memory' : Skr. *ma-tú-* *ma-tí-*. Goth. *sandjan* 'to send', OHG. *sentan sendan* OS. *sendian*, orig. form of the 1. sg. indic. pres. **sontéið*, cp. Goth. *sinþs* (st. *sinþa-*), O.Ir. *sēt* 'way', cpf. **sénto-*. Prim. Germ. **χarðú-* fr. **χarþú-* 'hard' (cp. Gr. *χατῖ-ς* with weak grade vowel in the root-syllable) : Goth. *hardu-s*, OHG. *hart hard* OS. *hard* Ags. *heard*, O.Icel. *harðr*. Goth. *fra-wardja* 'I destroy, spoil' : Skr. *vartáyāmi*, Indg. **uortéið*.

k, q. On Prim. Germ. **suegrá-* fr. **suegrú-* (Skr. *śvaśrá-*, Gr. *ἐννρά*) are founded OHG. *swigar* Ags. *swezer* 'mother-in-law', cp. Goth. *svaihra* § 529. Goth. *tigu-s* (*ʒ*) 'decade', OHG. *-zig* Ags. *-tiʒ*, O.Icel. *tegr* (*g* is the sign for *ʒ*) are founded on Indg. **dekm̥* with accented suffix (cp. Skr. instr. *daśábhiṣ daśabhíṣ*), dat. pl. Goth. *tigum* fr. **teʒm̥-mi* (§ 244), cp. Goth. *tathun* orig. f. **dékm̥t* § 529. Goth. *vigana-* (*ʒ*) m. or n. 'fight', OHG. *wīgant* OS. *wīgand* (*g* is the sign for *ʒ*) Ags. *wīgend* 'warrior' fr. the prim. Germ. tense stem **uīχá-*, rt. *uēiq-* (§ 439), cp. Goth. *veiha* 'I fight' orig. form **uēiqō*. Prim. Germ. **iūnaga-* fr. **iūnagá-* fr. **iūnaxá-* 'young' (Skr. *yuva-śá-s*) : Goth. *juggs*, OHG. OS. *jung*, O.Icel. *ungr*, cp. compar. Goth. *jūhiza* O.Icel. *öre* 'younger' fr. prim. Germ. **iū(ŋ)χizō* (§ 214). Goth. *hals-agga* m. 'bend of the neck, nape' : Skr. *anāká-*.

Verner's law is of special importance for the proper understanding of the 'grammatical change' in the verb. In this respect the West Germ. dialects show a variety of more archaic relations

than Gothic, since the regular differences had been levelled out in this language by form-transference. To Skr. *vartāmi* 1. sg. pres., *vavārta* perf. indic. 3. sg., *vavrtimā* 1. pl., *vavrtānā*-part. from rt. *uert-* 'turn' corresponded prim. Germ. **uérpō*, **uárpi*, **urđūmi*, **urđanā-*. From these regularly Ags. *weorðe*, *weard*, *wurdon*, *worden* OHG. *wirdu*, *ward* (*wirthu*, *warth*), *wurtum*, *wortan*. On the other hand Goth. *vairþa*, *varþ*, *vairþum*, *vairþans*, regular *d* (cp. *fra-vardjan*) having been supplanted by *þ* in the two last forms. OHG. regularly *ziuhu*, *zōh*, *zugum*, *zogan* (rt. *deyk-* 'draw'), but Goth. *tiuha*, *tāuh*, *taūhum*, *taūhans*, the two last for **tugum*, **tugans* (3), etc.

On prim. Germ. (3)*u* = Indg. *g* in Goth. *siuns* OS. *siun* 'countenance', OHG. part. *-liwan* 'lent' etc. see §§ 441. 444 c.

In prim. Germ. *bn*, *dn*, *zn*, before the principal accent of the word, passed into *bb*, *dd*, *zz*, further into *bb*, *dd*, *gg*, and these — still in the prim. Germ. period — became the *tenuēs* *pp*, *tt*, *kk* at the same time with the Indg. *mediae* (§§ 533. 534). Further shiftings took place in HG. viz. *pp* to *pf* (but Rhenish-Franconian *pp*), *tt* to *zz* (MHG. *tz*), *kk* to *cch*, that is, *kx* (but Franc. *kk*). MHG. *hopfen* (Mod.HG. Rhenish-Franc. *hoppe*) Ags. *hoppian* O.Icel. *hoppa* 'to hop' = Goth. **huppōn*, MHG. *hūpfen* (Mod.HG. Rhenish-Fr. *hippe*) Mid.Engl. *hyppen* 'to hop' = Goth. **huppan*, prim. Germ. **xupp-* fr. **xub-n-*, orig. **gup-n-*: O.Bulg. *kypēti* 'to hop, leap'. OHG. **snizzen* (to be inferred from *snizzāri* 'carver') MHG. *snützen* 'to cut', prim. Germ. **snitt-*, fr. **snid-n-* orig. **snit-n-*, cp. Goth. *sneiþa* 'I cut' from original **snēitō*. OHG. *zocchōn* MHG. *zocken* 'to pull, tug' = Goth. **tukkōn*, OHG. *zucchen* MHG. *zücken* 'to drag' = Goth. **tukkjan*, prim. Germ. **tukk-* fr. **duz-n-*, orig. **duk-n-*, cp. Goth. *tiuhan* 'to draw', rt. *deyk-*. The nasal in these intensives was the nasal of the present stem-suffix *-nd-* (Gr. *δάμ-νῃ-μι* etc.). On the other hand e. g. OHG. *smoccho* Ags. *smocc* O.Icel. *smokkr* 'underdress' (beside the intens. MHG. *smücken* 'to bevel, dress, adorn' to MHG. *smiegen* 'to press tightly' O.Icel. *smjūga* 'to creep through': Lith. *smūkti* 'to slide, glide' O.Bulg. *smykati* *sę* 'to creep') contained a nominal weak stem-form **smuq-n-* (cp. Gr. *ἀρ-ν-* 'ram', Skr. *ud-n-* 'water'),

which underwent various transformations by analogy, after the strong forms **smuq-én-* etc. had died out (s. Kluge in Paul-Braune's Beitr. IX 169). Cp. §§ 214. 534. 538.

§ 531. The voiced spirants, which had been received from prim. Germ., passed into the corresponding voiceless spirants in Goth., when they came to stand finally or before *s*. Nom. masc. *tamiþs* 'domitus' neut. *tamiþ* 'domitum' beside gen. *tamidis* (*ð*) 'domiti' etc. 3. sg. pres. *bairiþ* 'bears' fr. **birid(i)*: Skr. *bhárati*. *af* 'of' beside *ab-u* with *ð* (*-u* interrogative particle). 3. sg. pret. *bi-láif* (*bi-leiba* [*ð*] 'I remain') fr. **láib(i)*, a new formation for prim. Germ. **láifi* = Indg. **le-lóip-e*. The letter *g* was retained to express *χ*, see § 539.

b, *d*, *g*, which are to be read as *mediae* after consonants, probably became *tenues* in the same position, but this change was not represented in writing. Part. nom. *nasjands* acc. *nasjand* 'saviour' from prim. Germ. **-anda-z* **anda-n*. 3. pl. *nasjand* 'they rescue' prim. Germ. **-andi*. Nom. *alds* 'age' prim. Germ. **aldā-s*. Nom. masc. *juggs* neut. *jugg* 'young' prim. Germ. **-ūnagá-s* **-unagá-n*.

§ 532. Prim. Germ. *ð*, *ð̃*, *ȝ* became *bb*, *dd*, *gg* (gemination) before *i* in West Germanic, and these were further shifted to *pp*, *tt*, *kk* throughout the whole of High German. OHG. *uppi* 'ill-natured' prim. Germ. **uðia-*, to OHG. *ubil* Goth. *ubils* 'evil', which as original **upélo-* 'going over the mark, bounds' is connected with OHG. *ubir ubar* OS. *obar* 'over' Skr. *upári* Hom. Gr. *ύπερί*. OHG. *drittio dritto* 'tertius' OS. *thriddio* Ags. *ðridda*: Goth. *þridja* (*ð*) O.Icel. *þriðe þriði* (fem. *þriðja*), prim. Germ. nom. masc. **þriðio(n)* fr. **þri-þio(n)*: cp. Skr. *tr̥tīya-s* Lat. *tertius*. OHG. *ekka* 'point, edge, corner' OS. *eggia*: Goth. **agja* (*ȝ*) O.Icel. *egg*, gen. *eggjar* (*ggj* fr. *ȝi* by a special Norse law), prim. Germ. **aȝio-* fr. **aχio-*: cp. Lat. *aciē-s*, rt. *ak-*. OHG. *wulpa* MHG. *wülpe* 'she-wolf', with simplification of the *pp* after *l*, prim. Germ. **wulþi* (Indg. **ulqī*, Skr. *vṛkī*), gen. **wulþios* (a new formation for **wulȝios*), fem. to OHG. *wolf* Goth. *wulfs* prim. Germ. **wulfa-z* (Indg. **ulqo-s*), see § 444 a. Cp. §§ 529. 535. 540.

§ 533. History of the *mediae*.

These became *tenuēs* in prim. Germanic, except *d* in the Indg. combination *dʰdh*.

Gothic like the other Germ. languages, except High German, retained these *tenuēs*.

b. diups 'deep': Lith. *dubù-s*, rt. *dheub-*. See § 343.

d. tiuhan 'draw': Lat. *dūcō*. *hairtō* 'heart': *καρδ-ία*. *asts* 'twig, branch': Gr. *ὄζο-s*, Indg. **ozdo-s*. See § 375.

ġ, g. kairn 'corn': O.Bulg. *zrĭno*, cpf. **ġr-no-m. uf-rak-jan* 'to lift up': Av. *raz-išta-* 'straightest, most just', rt. *reġ-*. *juk* 'yoke': Skr. *yugá-m*, Indg. **jugó-m*. *qima* 'I come': Skr. *gám-a-mi*, rt. *gem-*. *vairpa* 'I throw': O.Bulg. *vrĭga*, rt. *uerg-*. See §§ 394, 439. 440. 443, 444 a.

The character of these sounds remained unchanged in West Germanic in the period of the prim. community. In HG. however they underwent further shiftings.

In Upper and Middle German dialects *p* became *pf* (written *pf* and *ph*) initially and after consonants, but *ff* (*f*) between vowels. This *pf* became *f* (*ff*) initially in certain dialects and in most of them medially after consonants. OHG. *pflegan flegan* (Renish-Franconian *plegan*) 'to care for': OS. *plegan* 'to promise, pledge', perhaps to Gr. *βλέφαρο-ν* 'eyelid' (Kluge Et. Wörterb.). OHG. *werpfan werfun* 'to throw': OS. *werpan*, Goth. *vairpan* with *p* fr. Irdg. *g*, see above. OHG. *slaf* (gen. *slaffes*) 'slack, lax': Du. *slap*; OHG. *slāffan slāfan* 'to sleep': OS. *slapan*, Goth. *slēpan*, O.Bulg. *slabŭ* 'slack, weak', rt. *slēb-*. OHG. *scaffōn* 'do, make': O.Icel. *skapa* (beside this OHG. *scepfen* 'to scoop': OS. *skeppian*, see § 535); this category has been ascribed to the rt. *sqab-* in Lith. *skabù-s* 'cutting' etc. (§ 346), the intermediate meaning being regarded as 'to bring to pass by hollowing out'.

t became *z*, that is *ts*, in HG. initially (except before *r*) and after consonants (except after *s*); after vowels it became the voiceless spirant *ʒz* (*z*), see § 375. OHG. *ziohan* 'to draw, pull': OS. *tiohan*, Goth. *tiuhan*. OHG. *herza* 'heart': OS. *herta*, Goth. *hairtō*. OHG. *smelzan* 'to smelt, melt, become liquid' *smalz* n. 'grease': Ags. *smolt* 'soft, quiet', Gr. *μείλω* 'I soften,

melt'. OHG. *wizzan* 'to know' *weiz* 'I know': OS. *witan wēt*, Goth. *vitān vāt*.

Initially OHG. *tr-* = Goth. *tr-*: *triuwa* 'fidelity': Goth. *triggva*, Pruss. *druwi* (§ 375); on the spelling *dr-* for *tr-* in Franc. sources, as *driuwa*, see Kögel Keron. Gloss. 70 f., Zu den Murbacher Denkm. (Leipz. 1883) 13 ff.

OHG. *ast* 'branch': Goth. *asts*, Indg. **ozdo-s*. *nest* 'nest': Ags. *nest*, Skr. *nīḍā-s* 'lair of animals', Lat. *nīdu-s*, Indg. **nīzd-o-s* (§ 355).

OHG. *quīfalōn* beside *zwīfalōn* 'to doubt': Goth. *twēifls*. See § 375.

k became *kx* (written *cch*, *ch* etc.) in Upper German initially and after consonants (except *s*), whilst it remained *k* in Middle Germ. It became *xx*, *x* (*hh*, *h*) universally between vowels. OHG. *chorn korn* 'corn': Goth. *kaur̥n*. *chniu kniu* 'knee': Goth. *kniu*. *chwēman quēman* 'to come': Goth. *qīman*. *werch werk*: OS. *werē*, Gr. *ἐργον-v*. *danch thank* 'thought, thanks': OS. *thanc*, Goth. *þagks*, Lat. *tongeō* 'I know'. *wahhēn* 'to wake': OS. *wakōn*, Goth. *vakan*, Skr. *vājāyati* 'urges on, drives on'. *dah*, gen. *dahhes*, 'roof': O.Icel. *þak*, Lat. *tegō*.

OHG. *masca* OS. *māska* 'mesh, stitch': Ags. *mæsce*, O.Icel. *mōskve mōskvi*, Lith. *mezgù* 'I knit' *māzgas* 'knot', rt. *mezg-*.

§ 534. *bn*, *dn*, *gn* became *bb*, *dd*, *gg* before the principal accent in prim. Germ., thence by § 533 *pp*, *tt*, *kk*, which were further treated just the same as the *pp*, *tt*, *kk* (§§ 530. 538) which had arisen from Indg. *pn*, *tn*, *kn* *qn* and from Indg. *bhn*, *dhn*, *ghn* *ghn*. OHG. *topfo* 'top' MHG. *topf* 'pot' (Rhenish-Franc. *topp*), Ags. *doppa* 'mergus', to Goth. *diups*, rt. *dheub-*. MHG. *rupfen ropfen* 'to pluck' (Rhenish-Franc. *roppe*), to OHG. *roufen* Goth. *rāupjan* 'to pluck, tear out', rt. *reub-* (§ 343). MHG. *stutzen* 'to push (with the horns), start back', to OHG. *stōzan* Goth. *stāutan* 'to push', Skr. *tuddmi*, Lat. *tundō*. MHG. *slitzen* 'to slit', to OHG. *slīzan* OS. Ags. *slītan* 'slit, split', rt. *slejd-*. OHG. *loc loch* (pl. *loccha*) MHG. *loc* (pl. *locke*) 'lock, ringlet', Ags. *locc* O.Icel. *lokkr* = Lith. *lagna-s* 'pliable', to Gr. *λύγος* 'pliant twig or rod' *λυγώω* 'I bend, tie'. OHG. *sluccho*

slukko 'glutton' MHG. *slucken* 'to gulp, have hiccup', to Gr. λύζω λυγγάνομαι 'I have the hiccup'.

§ 535. The prim. Germ. *tenuēs*, which had arisen from Indg. *mediae*, became *pp*, *tt*, *kk* (gemination) in West German. not only before *i*, but also before *r*, *l* and *w*. *pp* became *pf* (Rhenish-Franc. *pp*) in HG.; *tt* became *zz* before *i*, but remained before *r*; *kk* became *kx* in Upper German. but remained in Middle German. OHG. *scepfen* 'to scoop' (Rhenish-Franc. *scheppe*), OS. *skeppian*, see § 533. OHG. *lezzan* MHG. *letzan* 'hinder, hurt', OS. *lettian* Ags. *lettan* : Goth. *latjan*, rt. *lēd* 'leave, let'. OHG. *ottar* 'otter' (on the anaptyctic *a* in this and the following forms see §§ 277. 628) : O.Icel. *otr* pl. *otrar*, Skr. *udrā-s* 'water animal', Gr. ὕδρo-ς ὕδρa 'water serpent'. OHG. OS. *bittar* 'bitter' : Goth. *baitrs* (ablaut difference **bhidro* : **bhoīdro*-), to Goth. *bītan* 'to bite'. OHG. *hlūtтар* 'clear, pure', Ags. *hlattor* : Goth. *hlūtrs*, Gr. κλύζω fr. *κλυδ-ιω 'I wash out, clean'. OHG. *wecchen* *wecken* to wake', OS. *wekkian* : Goth. *vakjan*, O.Icel. *vekja*, to OHG. *wah-hēn* etc., see § 533. OHG. *acchar* *accar* 'acre, field', OS. *accur* : Goth. *akrs*, Gr. ἀγρό-ς. OHG. *facchla* *facchala* *faccala* 'torch', it is doubtful whether it was borrowed from Lat. *facula*. OHG. *nacchot* *naccot* 'naked' : Goth. *naqaps*, Lat. *nūdu-s* fr. **no(g)uedo-s*, Skr. *nagnā-s* (§ 432 c). OHG. *chuecchēr* *quekkēr* infl. adj. form 'alive, quick' : O.Icel. *kykr* acc. *kykvan*, prim. Germ. **kvikya-*, beside Goth. *giu-s* (st. *qiva-*). On the loss of the *w* after medial *k* in OHG. see § 180. Cp. §§ 529. 532. 540.

§ 536. The *d* in *dzdh* became assimilated to the following *z* in prim. Germ. Goth. *huzd* 'treasure' OHG. *hort*, Indg. **kud'dho-*. Perhaps also Goth. *gazds* 'sting, prick' OHG. *gart* 'rod, switch' O.Icel. *gaddr* 'sting' : Lat. *hasta*. See §§ 469, 5. 507. 538.

Rem. Osthoff (Morph. IV 262 f.) attempts to adjust Goth. *uz*- OHG. *ur-* *ar-* (Mod.HG. *ur-* *er-* in *ur-teil* *er-teilen*) to Skr. *ud* and Goth. *ūt* OHG. *ūz* 'out' by assuming that the form arose regularly in compounds like Goth. *us-dreiban* (for **uz-dreiban*) 'to drive out'. Cp. Av. *uz* § 476. OHG. *ort* OS. *ord* O.Icel. *oddr* 'point, top', fr. **ud+dhē* 'put up, lift up'?

The *z* in Goth. *uz-* became assimilated to a following *r*, as *ur-reisan* 'to rise up'.

§ 537. History of the *mediae aspiratae*.

In prim. Germ. they first became the voiced spirants *ḅ*, *ḍ*, *ḡ* (*ḡu*).

1. Initially. In the course of the individual dialects they were shifted to *mediae*; in Gothic all three in prehistoric times; in West Germanic *ð* and *ḏ* in all branches likewise in prehistoric times, whilst *ȝ* remained as *ȝ* in OS. and Ags. down to historic times; in the period of the oldest runic monuments all three were still spirants in Norse. In HG. *b* and *g* were further shifted to *p* and *k* in Upper Germany, *d* was shifted to *t* both there and in East Franconia.

bh. Goth. *beitan* 'to bite', OHG. *bīzzan* *bīzan* Upper Germ. *pīzzan* OS. Ags. *bītan*, O.Icel. *bīta* (prim. Norse **bītan*) : Skr. *bhédāmi*, rt. *bheid-*. See § 344.

dh. Goth. *dags* 'day', OHG. Rhenish-Franc. *dag* East Franc. and Upper Germ. *tag* OS. *dag* Ags. *dæȝ*, O.Icel. *dagr* runic. *dagaṛ* (read *ḏagaṛ*) : Lith. *dāga-s*, rt. *dhegh-*. See § 376.

gh gh. Goth. **gans* 'goose' (from which Span. *ganso* was borrowed), OHG. *gans* Upper Germ. *cans* Ags. *ȝōs*, O.Icel. *gās* : Lith. *žąsi-s*. Goth. *gasts* 'guest', OHG. *gast* Upper Germ. *cast* OS. *gast* (*ȝ*) Ags. *ȝiest*, O.Icel. *gestr* runic. *gastīk* (*ȝ*) : Lat. *hosti-s* O.Bulg. *gostŭ*. In *ȝu-* (= Indg. *gh-* *ȝ-*) was dropped already in prim. Germ. : Goth. *varmjān* 'to warm', OHG. *warm* O.Icel. *varmr* 'warm' : Skr. *gharmā-s*. See §§ 395. 439. 443.

§ 538. 2. Medially. The Indg. *mediae aspiratae*, through their being developed to voiced spirants, fell together with the Indg. *tenues* according to § 530, and thus the laws given in §§ 530—532 operated here also.

The following forms, in the first place, are to be judged of by § 530.

bh. Goth. *liuba-* (*ð*) 'dear', OHG. *linbo* adv. 'with pleasure' Ags. *leófoſt* 'dearest' (*f* is *ð*), O.Icel. *ljúfr* 'dear' (*f* is *ð*) : Skr. *lúbhyati* 'fosters a vehement longing', rt. *leubh-*. Goth. *kalbō* 'female calf', OHG. *chalba* f. *chalb* n., Ags. *cealf* (*ð*) n., O.Icel. *kalfr* (*ð*) : Gr. *δολφός-ς* *δελφύς-ς* 'womb' *δέλφαξ* 'pig'. OHG. *chamb* (gen. *chambes*) 'toothed instrument, comb', Ags. *comb* : Skr. *jāmbha-s* 'tooth', Gr. *γόμφο-ς* 'plug, peg, pin, nail', O.Bulg. *zqbŭ* 'tooth'.

dh. Goth. *ana-biudan* (*ḏ*) 'bid, command', OHG. *biotān*

biodan OS. *biodan* Ags. *beóðan*, O.Icel. *bjóða*, prim. Germ. **beudana-n* : Skr. *bódhāmi*, rt. *bheudh-*. Goth. *bindan* 'to bind', OHG. *bintan bindan* OS. Ags. *bindan*, O.Icel. *binda*, prim. Germ. **bindana-n* : Skr. *bándhana-m*, rt. *bhendh-*. Goth. *hairda* 'herd', OHG. *herta herda* Ags. *heord*, O.Icel. *hjørð*, prim. Germ. **xerðō* : Skr. *śárdha-s* 'herd, troop'.

gh, gh. Goth. *steigan* (ʒ) 'to ascend, climb', OHG. *stīgan* OS. *stīgan* (ʒ) Ags. *stīgan*, O.Icel. *stīga* (ʒ), prim. Germ. **stīzana-n* : Gr. *στείχω*, rt. *steigh-*. Goth. *aggvu-s* 'narrow', OHG. *engi*, O.Icel. *qngv* : Gr. *ἄγγω*, rt. *añgh-*. Goth. *gaggan* 'to go', OHG. *gangan*, O.Icel. *ganga* : Skr. *jan̄ghā-* 'heel-bone', rt. *ghenagh-*. Goth. *láuna-varga-* 'unthankful man', OHG. *warg* 'strangler' MHG. *er-wergen* 'to strangle', O.Icel. *vargr* (ʒ) 'wolf, outlawed evil-doer' : Lith. *veržiù* 'I string, compress, straiten', rt. *uergh-*.

On prim. Germ. (ʒ) *u* in Goth. *snáivs* fr. orig. **snoigho-s* and similar forms see §§ 443. 444 *b*. In the cases there quoted prim. Germ. ʒ *u* was the labialised form of Indg. *gh*. The same loss of a suffixal *-u-* occurs in prim. Germ. **ma ʒ u-i* 'girl' (Goth. *mavi*, gen. *máujōs*), to masc. Goth. *magu-s* 'boy, child, servant' = O.Ir. *mug* 'slave, servant'; cp. Skr. *svād-v-i* fem. to *svād-ú-ṣ* 'suavis'.

Here is further to be added — in contrast to § 530 — the case when prim. Germ. *ð, ʒ* followed *z*. Goth. *mizdō* 'pay, reward', in West Germ. with 'compensation lengthening' of the *e = i* OHG. *mētu miata* OS. *mēda* O.Fris. *mēde* Ags. *mēd* beside *meord* (*r* from *z*) : Gr. *μισθός*, Indg. **mizdhó- *mizdhá-* (§§ 596. 621). Goth. *huzd* 'treasure', OHG. *hort* OS. *hord* (*horth*) Ags. *hord*, O.Icel. *hodd* : Indg. **kud^hdho-*, cp. §§ 469, 5. 507. 536. OHG. *marg* 'medulla' Ags. *meorʒ*, O.Icel. *mergr* (ʒ), Goth. *mazgu-*, pre-Germ. **mozgho-*, cp. §§ 450. 590. 596.

Prim. Germ. *pp, tt, kk* from *bn, ðn, ʒn*. Sure examples are known to me only for *kk*, as OHG. *lecchōn* Mid.HG. *lecken* 'to lick', OS. *leccōn*, prim. Germ. **likkōna-n* (cp. Goth. *bi-láigōn*) : Gr. *λίχρος* 'lickerish', Lat. *lingō*, rt. *leigh-*. Cp. §§ 214. 530. 534.

§ 539. A change of *ð, ð, ʒ* to *f, þ, x* (*g*) in Gothic, cp. § 531. Masc. nom. *liufs* acc. *liuf* 'dear' beside gen. *liubis*

(b). *ráuþs ráuþ* 'red' beside gen. *ráudis* (*ð*), rt. *reydh-*. *vigs vig* (*χ*) 'way' beside *vigis* (*ʒ*), rt. *uegh-*.

Pret. *svarb* to *svairban* 'to wipe from', rt. *suerbh-*; pret. *band*, to *bindan*, rt. *bhendh-*; *gild* n. 'tax', to *fra-gildan* 'to requite', rt. *gheldh-*; *gaggs gagg* 'way, street'; *láuna-vargs* 'unthankful man' -*varg* are parallel to the forms like *nasjands nasjand* etc. in § 531. The forms *gazds*, *huzd* (st. *gazda-*, *huzda-*) were accordingly possibly pronounced with *st*.

§ 540. West Germ. *bb*, *dd*, *gg* (H. German *pp*, *tt*, *kk*) before *i*, see § 532. OHG. *sippia sippa* 'relationship', OS. *sibbia sibbea* Ags. *sib* (gen. *sibbe*) : Goth. *sibja* (*b*), O.Icel. *Sif* (gen. *Sifjar*, *f* is *b*) goddess of the family and wedlock, Skr. *sabhd-* 'assembly, society of kinsfolk'. OHG. *mitti* 'medius', OS. *middi* Ags. *mid* (gen. *middes*) : Goth. *midjis* (*ð*), O.Icel. *miðr* (acc. *miðjan*), Skr. *mádhya-s* 'medius'. OHG. *bitten* 'to request', OS. *biddian* Ags. *biddan* : Goth. *bidjan* (*ð*), O.Icel. *biðja*, Gr. *πιθω*, rt. *bhejdh-* (§ 67 rem. 3). OHG. *likken* 'to lie down', OS. *liggian* : O.Icel. *liggja* (*ggj* fr. *ʒi* by a special Norse process), prim. Germ. **liʒiāna-n*, Gr. *λέχος* 'bed', rt. *leggh-*. Cp. §§ 529. 535.

§ 541. Chronology of the prim. Germ. shiftings of the explosives. The following is probably the order in which the chief acts of the prim. Germ. shifting of the Indg. explosives took place; we include at the same time the history of the Indg. tenues aspiratae, which will be more fully discussed in § 553.

Act 1 (or 2). The aspirates become spirants. *bh*, *dh*, *gh* become *b̥*, *d̥*, *ʒ*, e. g. **bheydhō* becomes **beyðō* (Goth. *biuda*), see § 537. *ph*, *th*, *kh* become *f*, *þ*, *χ*, e. g. 2. sg. perf. **le-lós-tha* (rt. *les-* 'gather together') becomes **(le)-lasþa* (Goth. *last*), **nokh-ló-* 'nail' becomes **naxlá-* (OHG. *nagal*), see § 553.

Act 2 (or 1). *p*, *k* become *f*, *χ* before *t* and *s*, e. g. **rekto-s* 'right' becomes **rexta-s* (Goth. *raihts*), see § 527.

Falling together of the tenues asp. with a portion of the tenues.

Act 3. The tenues become voiceless spirants elsewhere, *p*, *t*, *k* become *f*, *þ*, *χ*, e. g. **patēr*, **bhrátōr* become **faþēr* **brōþōr* (Goth. *fadar*, *brōþar*), see § 528.

Falling together of a further portion of the tenues (eventually of all tenues, see the end of § 528) with the tenues asp.

Act 4. The voiceless spirants become voiced by Verner's law, *f*, *þ*, *χ* become *b*, *d*, *g*, e. g. **nazlá-* becomes **nazlá-*, **faþér* becomes **fadér*, see § 530.

Falling together of tenues asp. and tenues with the mediae asp.

Act 5. The *b*, *d*, *g*, which had arisen from mediae asp. and tenues, assimilate a following *n* before the principal accent: *bb*, *dd*, *gg*, e. g. pres. stem **liǵ-nó-* 'lick' (Indg. **liǵh-ná-*) becomes **liǵǵó-* (OS. *leccōn*), noun stem (weak) **smuǵ-n-* 'dress' (Indg. **smuǵ-n-*) becomes **smuǵǵ-* (O.Icel. *smokkr*). Indg. *b*, *d*, *g* with a following *n* simultaneously become *bb*, *dd*, *gg* when the accent is in the same position, e. g. **lug-ná-* 'lock, ringlet' (Indg. **lug-nó-*) becomes **luggá-* (O.Icel. *lokk*). Then *bb*, *dd* *gg* become *bb*, *dd*, *gg*: **liǵǵó-* **smuǵǵ-* become **liggǵ-* **smugg-*. See §§ 530. 534. 538.

Falling together of mediae with tenues and tenues asp.

Act 6. The mediae become tenues, *b*, *d*, *g* become *p*, *t*, *k*, e. g. **deuǵō* 'I draw' (rt. *deuǵ-*) becomes **teuǵō* (Goth. *tiuha*), **azda-* 'branch' becomes **asta-* (Goth. *asts*), **liggō-*, **smugg-*, **lugga-* (see 5.) become **likkō-*, **smukk-*, **lukka-*. See § 533.

Act 7. *sp*, *zđ*, *mđ*, *nđ*, *ǵg* become *st*, *zd*, *mđ*, *nd*, *ǵg*, e. g. **(le-)lasþa* (1.) becomes **lasta* (Goth. *last*), **mizđō-* 'pay, reward' becomes **mizdō-* (Goth. *mizdōn-*), **(be-)bānde* 'he bound' becomes **bānde* (Goth. *band*). See §§ 530. 538.

Rem. That *sp* first became *st* at this period, is only deduced from the change of *zđ* to *zd*, which cannot have taken place earlier. Here belongs eventually also the origin of the tenuis in Goth. *speivan*, *ist* etc., see § 528 (end) and 3 above.

Baltic-Slavonic.

§ 542. The Indg. tenues and mediae remained in the period of the Balt.-Slav. prim. community, while the mediae aspiratae, as in Iran. (§ 481) and Kelt. (524), became mediae and thus fell together with the Indg. mediae,

Indg. *k*, *g*, *gh* were *ś*-sounds in this period. See § 412.

§ 543. History of the *tenues*, prim. Balt.Slav. *p*, *t*, *k* and *ś*. These sounds generally remained unshifted.

p. Lith. *pilna-s* O.Bulg. *plünŭ* 'full': Av. *per'na-*, rt. *pel-*. See § 345.

t. Lith. *tā* O.Bulg. *tŭ* 'the' acc.: Skr. *tá-m*. See § 377.

q. Lith. *kà-s* O.Bulg. *kŭ-to* 'who?': Skr. *ká-s*. See § 462.

k. Lith. *szvit-ėti* O.Bulg. *svit-ėti* 'to shine': Skr. *śvit-rá-s*, rt. *kŭejt-*. See § 413.

§ 544. The assimilation of Indg. *ts* to *ss*, of Indg. *t't* to *st* and of Indg. *ks* to *śś* seems to have been effected in the period of the Balt.-Slav. prim. community.

ts to *ss*. Lith. *ėsiu* 'I shall eat': cp. Skr. fut. *atsyāmi*, O.Bulg. 2. sg. *jasi* 'thou eatest': cp. Skr. *ātsi*, O.Bulg. aor. *jasŭ* 'I ate' fr. **ēt-s-o-m*, pl. *jasli* 'manger' fr. **ēt-slo-*, rt. *ed-* 'eat'. Lith. *mėsiu* fut. to *metŭ* 'I throw'. Lith. *kiřsiu* fut. to *kertŭ* 'I hew sharply': cp. Skr. *katsyāmi* 'I shall cut', rt. *qert-*. Lith. *kriřta-s* 'crumb, scrap', to *krintŭ* (pret. *kritaŭ*) 'I fall'. O.Bulg. *čisŭ* s-aorist 'I counted' *čislo čismę* 'number', to *čŭta* 'I count'. Lith. part. *vežąs* 'vehens' fr. **ueghont-s* = Skr. *vāhan*; the corresponding forms of O.Bulg. probably also came from Indg. **-ont-s*, as *vezy* 'vehens' *spėje* 'hastening', cp. acc. pl. *vlŭky* 'lupos', *konje* 'equos' from **-ons* (§§ 84. 219).

It may be concluded that this *ss* = *ts* had not yet entirely fallen together with Indg. *s* in prim. Slav., since *s* = *ts* did not become *ch* as was the case with Indg. *s* (§ 588, 2). Forms like 1. sg. *jachŭ* 1. pl. *jachomŭ* 3. pl. *jařę* beside *jasŭ* *jasomŭ* *jařę* (*s*-aorist from rt. *jad-* 'eat') were later formations (§ 588 rem. 2).

t't to *st*. Lith. *virřti* 'to fall down, change', O.Bulg. *vrřsta* 'state, condition': Lat. part. *vorsu-s*, Skr. *vyttā-m* 'state, situation', Indg. **yrt'tó-*, rt. *yert-*. Lith. *ėst* O.Bulg. *jasŭ* 'eats': cp. Lat. *est* Skr. *ātti*. Lith. *dŭst* O.Bulg. *dastŭ* 'gives': cp. Skr. 3. sg. mid. *dattē*, from the reduplic. root *dō-* 'give'. Lith. *pėscia-s* 'being on foot' first of all from **pēstja-s* (§ 147), to *pėdà* 'foot-

step'; on the East Lith. form *pėszczia-s* see § 587, 3. O.Bulg. *čstŭ* 'honour', to *čŭta* 'I count, reckon, honour'.

ks became *šš*. Lith. *aszl-s* O.Bulg. *osŭ* 'axis': Lat. *axi-s*. Lith. *deszinė* 'right hand' O.Bulg. *desŭnŭ* 'dexter': Skr. *dākṣiṇa-* Av. *dašina-*. See § 414.

With the reduction of *ss* to *s* and *šš* to Lith. *sz* O.Bulg. *s*, compare that of prim. Balt.-Slav. *ss* = Indg. *ss* to Lith. O.Bulg. *s*, as Lith. *lėsiu* fr. **les-siu*, fut. to *lesù* 'I pick up, peck at', O.Bulg. *otŭ-tręsę* fr. **-tręs-sę*, *s*-aorist to *otŭ-tręsq* 'I shake off'. See § 585, 3.

Further the loss of the dental in Lith. *āszma-s* 'octavus', Pruss. *asma-n* acc., O.Bulg. *osmyjŭ* might also be prim. Balt.-Slav.: cp. Skr. *aṣṭamā-* O.Ir. *ochtmad*. —

Lithuanian. In forms like partic. pres. act. *lipdama-s* (*lipù* 'I climb, mount'), *vilkdama-s* (*velkù* 'I trail, drag') the pronunciation has apparently fluctuated for centuries between *pd*, *kl* and *bd*, *gd* in some parts of Lithuania. Analogously *mėsdama-s* and *mėzdama-s*, to *metù* 'I throw'. This phenomenon is easily explained from the fact that the constant striving after assimilation has been again and again counteracted by the feeling of relationship between kindred forms, e. g. *lįpti lįpsiu* etc., *vilkti vilksiu* etc., *mėsti* etc. Cp. the fluctuation between *pįsiu* and *pįnsiu* § 218 rem.

Rem. 1. The change between *ąugti* (inf.) *ąugsiu* (fut.) and *ąukti* *ąuksiu* (pres. *ąugu* 'I grow'), between *dirbti dirbsiu* and *dirpti dirpsiu* (pres. *dirbu* 'I work') etc. in Lithuanian writings is merely of an orthographical nature, only *kt ks pt ps* is spoken everywhere. Cp. the phonetically inexact Mod.HG. spellings like *sagte*, *raubte*, *flugs*.

The simplification of consonantal groups is rare, as *desziŭms* beside *desziŭnts* 'ten'.

Rem. 2. It is not certain whether *nakróju* 'I pass the night with', *nakrójné* 'night quarters' belong here, since *naktvóju*, *naktvójnė*, existing side by side of these and regarded as the original forms, might have got their *t* from *naktŭ-s* an older stem **noqtu-* is by no means proved for certain through Lat. *noctŭ* (see the author in Ber. d. sächs. Ges. der Wiss. 1883 p. 192).

sztr from *szt* in *asztrŭ-s* 'sharp' beside *aszru-s* (Dowkont): O.Bulg. *ostrŭ* 'sharp' from **osrŭ* (§ 545), Skr. *ásri-ṣ* 'corner',

Gr. ἄκρο-ς 'pointed'. It is however questionable whether the Lith. word has not acquired its *t* through the influence of the corresponding Slav. word.

§ 545. Slavonic. On prim. Slav. *č*, *c* from *k* = Indg. *q*, prim. Slav. *tχ'* (O.Bulg. *št*) from *kt* = Indg. *qt*, prim. Slav. *χ* (*ch*) from *ks* = Indg. *qs* see § 462.

Loss of *tenuēs* before following consonants (cp. § 281 rem. 3):

p disappeared before *t*, *n*, *s* in the prim. Slav. period. O.Bulg. *netijǎ* 'nephew, cousin' fr. **neptǎjǎ* (§ 36) = Gr. ἀνεψιός-ς, cpf. **nept-iǐo-s*. *po-črēti* 'lade, scoop' fr. **čerti* **čerpti*, to 1. sg. pres. *po-črǐpa*. Correspondingly *greti* 'to scrape, scratch' fr. **grepti*, to 1. sg. *greba* with *b* = Indg. *bh* (§ 552). The forms *po-črēsti* -*črǐsti* -*črǐpsi* and *gresti* *grebsti*, met with in later monuments, were new formations, which seem to have arisen from a dislike — also met with elsewhere — for infinitive forms with short stem-syllable; the *s* was transferred from *plesti nesti* etc. *sǔnǔ* 'sleep' from **sǔpnǔ* = Gr. ὕπνο-ς. *pri-lǐna* 'I stick to' from **lǐpna*, cp. *pri-lǐpǐti* 'to stick to'; *pri-lǐpna*, which occurs beside *pri-lǐna* in the literary monuments, had borrowed *p* anew from form-association. *vosa* 'wasp' fr. **uopsā* = Lith. *vapsà* 'gad-fly'. *osina* 'aspen-tree': Lett. *apse* Pruss. *abse*. Cp. also the *s*-aorist *grēsǔ*, to *greba* 'I scrape, scratch'.

t disappeared before *l*, *n*. O.Bulg. part. pret. *plelǔ* fr. **plet-lǔ*, to *pletǎ* 'I twist'. This disappearance before *l*, like that of *d* before *l* (§ 548), seems to be old only in the southern and eastern dialects; in the western dialects prim. Slav. *tl* seems to have prevailed down to historical times, e. g. Upper Sorabian *pletl* = O.Bulg. *plelǔ*. Examples for the disappearance of *t* before *n* occur in all branches, as O.Bulg. *o-svǐnǎti* 'to become light' fr. **svǐt-nǎti* (cp. *svǐtǐti* 'to shine'), Servian *svanuti*. Nevertheless I do not know whether this dropping of *t* is to be regarded as prim. Slav. Cp. *dn* § 548.

k disappeared in the prim. Slav. period in *pǐtǐ* 'five' = Skr. *pañcīti*-ś 'the number five' (cp. Av. *pañtanaha*- 'fifth part' beside *pañca* 'five', Lat. *quīntus* beside *quīnque*). This

reduction of *ɲkt* to *ɲt* must be older than the change of *kt* to *tʃ*. *k* disappeared also in the prim. Slav. period in *-kst-* (Indg. *-gst-*). 2. pl. of the *s*-aorist *těste*, to 1. sg. *těchŭ* = orig. **tēq-s-o-m* (§ 462). In like manner *plesti* 'to twist' from **plekstī* i. e. **plekt+tī* (cp. Lat. *plectō*, OHG. *flehtan*), which gave the impulse to the new formations pres. *pleta* noun *plotŭ* 'twist, plait' etc., forms, in which *t* cannot be explained as having arisen phonetically from *kt*.

Loss of tennes between *s*+conson. O.Bulg. *slězena slezena* 'spleen': Gr. *σπλήν σπλάγγνο-ν*. *plesnati* 'to clap' fr. **plesk-nati*, to *pleskati* 'to clap'.

Development of *t* as glide in *sr* = Indg. *kr* in prim. Slavonic. O.Bulg. *ostrŭ* 'sharp': Gr. *ἄκρο-ς* etc., see end of § 544. *pīstrŭ* 'variegated' fr. orig. **pik-ro-s*: Skr. *piśāmi* 'I adorn, shape', Gr. *ποικίλο-ς* 'variegated'. The same development occurs also at a later period, e. g. O.Bulg. *strīšen-ŭ* beside *srīšen-ŭ* 'hornet, gad-fly': Lat. *crabrō* (§ 303). Cp. Slav. *str* = Indg. *sr*, § 585, 2.

§ 546. History of the mediae, prim. Baltic-Slav. *b*, *d*, *g* and *ž*.

b. Lith. *dubŭ-s* 'deep, hollow', O.Bulg. *dŭbrŭ* 'ravine, valley': Goth. *diups*. See § 346.

d. Lith. *dŭ-ti* O.Bulg. *da-ti* 'to give': Lat. *dōs dōtis*. See § 378.

g. Lith. *gīria* 'forest', O.Bulg. *gora* 'mountain': Skr. *gīrt-ṣ*. See § 463.

ž. Lith. *žirni-s* 'pea', O.Bulg. *zrŭno* 'corn': Goth. *kaurn*. See § 415.

§ 547. The transition of *dʳd(h)* to *zd(h)* and of *dm* to *m* seems to belong to the period of the Baltic-Slav. prim. community.

The 2. sg. imper. O.Bulg. *viždŭ* 'see', *věždŭ* 'know', *jaždŭ* 'eat' from **viždŭ*, **vēždŭ*, **ēždŭ*; the *ž* instead of *z* arose from a contamination with the optative forms which had *-iē-* and were used imperatively (see Osthoff Morph. Unt. IV 387 and the accidence). **vēždŭ* = O.Lith. *veizd(i)* 'see'. The cpf. was

**ueizdi* fr. **ueid^h-dhi* (with different, older root-vocalism Gr. *ἰσθι* and Skr. *viddhī*).

Rem. 1. O.Lith. *veizd(i)* coming to be on a level with forms like *leid(i)* *ved(i)*, the *z* forced its way into the remaining forms of the verbal system also (first of all into the imper. pl.), hence *vėizdmi vėizdžiu* instead of **veidmi *veidžiu*, lastly into noun formations also, hence e. g. *ap-veizda-s* 'providence' beside *vėida-s* 'face, countenance'.

It is doubtful whether O.Bulg. *daždī* 'give' imper. also belongs here, since it might possibly stand for **dādī* and along with O.Lith. *dūdi dūd* represent an orig. **dō-dhi*. Cp. the accidentence.

dm (partly from Indg. *dhm*) became *m*. Lith. *ėmi* O.Bulg. *jamī* 'I eat' fr. **ēd-mi*; Lith. *ėdmi* is a new formation (cp. rem. 3). Lith. *dūmi* O.Bulg. *dumī* 'I give' fr. **dōd-mi*. Lith. *dėmi* 'I place, put' fr. **dēd-mi*, O.Lith. *demi* fr. **ded-mi*, rt. *dhē*-. O.Bulg. *vēmī* 'I know' fr. **uoīd-mi*, rt. *ueīd*-. O.Bulg. *vym^u* 'udder' fr. **ūd-mēn*; Skr. *ūdhar*.

Rem. 2. The loss of the labial in O.Bulg. *sedmyjtī* 'septimus' must be younger than this dropping of *d*. It may however have been effected already in the Baltic-Slav. prim. language, since by § 469, 3 the *tenues* in Lith. *sėkma-s* (first of all from **sepma-s* or from **setma-s*? § 345) and Pruss. *septma-s sepma-s* seem to be due to a new formation after the analogy of the cardinal number.

Rem. 3. The apparent dropping of *d* before the suffix of the 1. du. in Lith. *dūva* O.Bulg. *davē javē* etc. has probably arisen from analogy with the 1. sg. and 1. pl. The regular form may be retained in Lith. *ėdva* and this might have aided in the creation of *ėdmi ėdme*.

§ 548. No further changes, which need to be mentioned here, took place in Lithuanian.

Slavonic. On prim. Slav. *dž dz* fr. *g* = Indg. *g* see § 463.

Loss of the *mediae b d* before following consonants. We also take into account here the *mediae* which had arisen from Indg. *mediae aspiratae*.

b disappeared before *n* in prim. Slavonic. O.Bulg. *dūno* 'ground, bottom' fr. **dūbno*, beside Lith. *dūgna-s* (§ 346), to *dūbrī* 'ravine, valley', rt. *dheub-*, see § 325. O.Bulg. *sū-gūnq* 'I fold' fr. **gūb-naq*, to *sū-gybatī* 'to fold', Lith. *dvi-guba-s* 'two-fold, double'. *gynq* beside *gyb-ajq* 'I sink, go to ruin'; *b* has been restored in *gybnq* like the *p* in *pri-līpnq* (§ 545).

d disappeared before *l*, *n*. O.Bulg. part. *palū* fr. **pad-lū*, to *padq* 'I fall', rt. *ped-*. *šilo* 'awl' fr. **ši-dlo*, *ralo* 'plough' fr. **ra-dlo*, *želo* 'point, prick' fr. **žę-dlo* with suffix *-dlo-* from Indg. *-dhlo-* (Gr. *-θλο-*, Ital. *-flo-*). *jela* 'fir': Pruss. *adde* Lith. *žglė* fr. **edlė* (§ 378). This loss of *d* before *l* is old only in the southern and eastern dialects, it was retained in the western dialects, as Czech *šidlo* Sorab. *šidlo* Polish *szydło* 'awl', Polish *żądło* 'edge' *jodła* 'fir'. Examples for the loss of *d* before *n* occur in all branches, as O.Bulg. *za-ganaq* 'coniectura assequor' fr. **gād-naq*, to *gad-ajq* 'conicio' O.Icel. *geta* 'to get, hit upon, guess', rt. *ghed-* (§ 425); *vüz-būnaq* 'I awake', to *būdēti* 'to wake, be awake', Skr. *budh-*, rt. *bheydh-*; *u-v:naq* 'I become withered', to *u-vēd-ajq* 'I become withered'; the *d* in *padnaq* 'I fall' (beside *padq padajq*) etc. had been restored by form-association. It is however questionable whether the dropping of *d* before *n* took place so early as the prim. Slav. period. Cp. *tn* § 545.

§ 549. History of the mediae aspiratae. They fell together with the mediae in the period of the Balt.-Slav. prim. community, as was the case also in Iranian (§ 481) and Keltic (§ 524). The laws, which have been laid down for the Indg. mediae (§§ 546—548), therefore held good also here.

bh. Lith. *bijóti-s* O.Bulg. *bojati se* 'to be afraid': Skr. *bháy-a-tē*. See § 347.

dh. Lith. *dė-ti* O.Bulg. *dě-ti* 'to lay, put': Skr. *dhā-ma*. See § 379.

gh. Lith. *snėga-s* O.Bulg. *sněgŭ* 'snow': Gr. *νίφα*, rt. *sneigh-*. See § 464.

gh. Lith. *žėmà* O.Bulg. *zima* 'winter': Gr. *χειμών*. See § 416.

§ 550. Prim. Baltic-Slav. change. *dm* became *m*: O.Lith. *demi*, O.Bulg. *vymz*, see § 547.

§ 551. On prim. Slav. *dž dz* from *g* = Indg. *gh* see § 463.

O.Bulg. *ralo* fr. **ra-dlo* with suffix *-dhlo-*, *vüz-būnaq* fr. rt. *bheydh-* and similar forms see, § 548.

The combination media aspirata + *t*, *s*.

§ 552. It has already been remarked in § 469, 6 that a sure answer has not yet been found to the question how the combination media asp. + *t* or *s* was pronounced at the time just before the dissolution of the Indg. prim. community.

In Aryan we must hold as the regular continuations of the Indg. prim. forms such forms as Skr. *dybđhá-* Av. *der'wđa-*, Skr. *dīpsati* Av. *diwžaidyai*, which yield for the Ar. prim. community *bdh* as the continuation of *bh+t* and *bzh* as that of *bh+s* etc. The history of these Ar. groups is treated in § 482.

All the European languages have for the original combinations the same representations as for Indg. *pt ps*, *t't ts*, *kt ks*, *qt qs*. Examples:

Greek *ρόπτό-ς* 'sipped, supped'; to *ρόπέω*, Lith. *srebiù* 'I sip', rt. *srebh-*. *ἀ-πρωτο-ς* 'not heard of' (*πύθομαι*), Skr. *buddhá-s*; *πύσεται* 'he will search, inquire': Skr. *bhōtsyátē*, rt. *bheydh-*. *ἀν-ιχτό-ς* 'bearable' (*ἔχω*): Skr. *sādhá-s* fr. **sādhá-s*; fut. *ἔξω*: Skr. 1. sg. aor. mid. *ásakṣi*, rt. *segh-*. *εὐχτο*, *εὐξομαι* (*εὐχομαι*) 'I supplicate, pray': Av. 3. sg. *aog'da*, 2. sg. *aogžā*, rt. *eugh-* (§ 482). *ἐνιπε* 'it snowed' (*νίφει*), rt. *sneigh-*.

Italic. Lat. *nūptum nūpsī*, to *nūbō* Gr. *νύμφη* (Fick Vergl. Wörterb. I³ 648). *ab-sorpsī*, to *ab-sorbeō* (*srbh-*), Gr. *ρόπέω*, see above. *gressu-s*, to *gradior*, Goth. *gridi-*. *jussu-s*, perf. *jussī*, to *joubeō*, see § 370. *dī-visu-s*, perf. *dī-visī*, to *dī-vidō*, Skr. *vidhyāmi* 'I pierce through'. *vectum vector*, *vēxī* (*vehō*): Skr. *vōđhum* Av. *važdri-š*, Skr. *vákṣat*, rt. *uegh-* (§ 482). *forti-s* *forti-s*: Skr. *dyđhá-s* 'fastened, fast', rt. *dhergh-*. *anctu-s anxius*, to *angō angor*, rt. *añgh-*. *lectus* 'couch', to Gr. *λέχος*, rt. *leggh-*. *nīctō cō-nīxī*, to *cō-nīveō*, rt. *kneigh-*. *nīx nīnxit*, to *ninguit*, rt. *sneigh-*.

Old Irish. *tachtæ* (**to-achtæ*) 'angustus', rt. *añgh-*. *snechta* 'snow', rt. *sneigh-*. *for-tiasam* 1. pl. of the *s*-fut. to *for-tiagaim* 'I help', cp. Gr. *στέλλομαι*, rt. *steigh-*.

Germanic. MHG. *wift* 'fine thread' OHG. *wiften* 'texere' O.Icel. *veftr veftr* 'weft', to OHG. *weban* O.Icel. *vefa* 'to

weave', Skr. *ubhnāti* 'binds, fastens' part. *ubdhá-*, Gr. *ῥαψ* 'web', rt. *uebh-*. OHG. *musse* f. 'spring, source' prim. form **mudh + tē* : cp. OHG. *mutilōn* 'to murmur, mutter', Gr. *μῦθο-ς* 'speech' (Kögel Paul-Braune's Beitr. VII 180 f.). Goth. *gilstr* 'tax', to *gild* 'tax', rt. *gheldh-*. Goth. *ana-busns* 'commandment' prim. Germ. **-butsni-*, to *ana-biudan*, rt. *bheydh-*. Goth. *dauhtar* OHG. *tohter* 'daughter' : Av. *dug'da duyda*, Indg. **dhugh + ter-*. Goth. *mahts* OHG. *maht* 'might, power', to Goth. *magan* 'may, be able', O.Bulg. *moga* 'I can, may'. Goth. *leihts* OHG. *liht* 'light, easy', prim. Germ. **leraxta-z* : Skr. *laghú-* Gr. *ἐλαχύ-ς*, rt. *lengh-*.

Baltic-Slavonic. Lith. *skrepti* 'to dry' fut. *skrepsiu*, to pres. *skrebiu*, Gr. *κάρρω* 'I make dry or withered' (cp. § 589, 3). O.Bulg. *greti*, *grēsū* fr. **greptī*, **grēpsū*, to *grebā* 'I scrape', Goth. *graba* 'I dig' (§ 545). Lith. *vēsti* O.Bulg. *vesti* 'to lead', Lith. fut. *vēsiu* O.Bulg. aor. *vēsū*, to pres. Lith. *vedū* O.Bulg. *veda*, Skr. *vadhá-* 'bride, young woman' (she who is to be led home, she who is led home). Lith. *vēszi* O.Bulg. *vesti* 'to drive, ride', Lith. fut. *vēsziu* O.Bulg. aor. *vēsū*, to pres. Lith. *vežū* O.Bulg. *veza* : Skr. *vāhami*, rt. *uegh-*. Lith. *duktė* O.Bulg. *dūšti* 'daughter' : Av. *dug'da*. Lith. *dėkti* O.Bulg. *žēsti* 'to burn', Lith. fut. *dėksiu* O.Bulg. aor. *žēchū*, to pres. *degū*, *žega*, Skr. *ni-dāghá-s* 'heat', rt. *dhegh-*; for the initial sound in Slav. cp. § 379 rem.

Rem. 1. I do not know any examples from Armenian which belong to this class. By § 467, 1 the word *dustr* does not come under consideration.

The question now remains, is this representation of the original sound-combinations in the European languages the regular continuation of the Indg. forms, or have new formations arisen of the nature of Av. *dapta-* for **dawda-* = Skr. *dabdhá-* etc. (§ 482 rem. 1)?

Some scholars have come to the conclusion that the latter is the case at least as regards the combination media asp. + *t*, because they thought that they had also found in the Europ. languages an aspect differing from Indg. *tenuis + t*, which is to be regarded as the regular development. Nevertheless all

the cases, which have been brought forward, also admit of a different decision regarding them.

Rem. 2. Bartholomae (Kuhn's *Ztschr.* XXVII 206) explains Gr. *θυγάτηρ* on the ground of a presupposed prim. Gr. double form **dhughater-* and **dhugdher-*. But the form may also belong to the class *ἑγώ μέγας* etc. (§ 469, 8). Gr. *κύνθος* Goth. *huzd* Lat. *custōs* need not contain **kudh+t-* (cp. Bartholomae *Ar. Forsch.* I 176, Kluge in Paul-Braune's *Beitr.* IX 153), but admit of being traced back to **kudh+dh-*, so, too, Goth. *ga-hugdi-* 'understanding' to **kug+dh-*, whence **kugdh-* (cp. §§ 469, 5. 507. 536. 538). Still more uncertain is the material which W. Meyer in Kuhn's *Ztschr.* XXVIII 166 f. has brought forward from Lat. and Kelt. beside *custōs*.

Therefore the possibility still remains, that forms like Gr. *ῥοντός* etc. exhibit the regular continuation of the Indg. prim. forms.

Rem. 3. Osthoff *Zur Gesch. d. Perf.* p. 320 f. regards *bh*, with voiced media *b*, as being the form which was in existence in the last stage of the Indg. prim. language, from which was regularly developed on the one hand Skr. *bh*, and on the other hand Gr. *πτ* etc. This is however not very probable from a phonetic point of view.

The Indg. *tenuis aspiratae*.

§ 553. It is less doubtful that the Indg. prim. language possessed *tenuis aspiratae* than, to what extent it possessed this mode of articulation. Of late there has been a tendency to regard all or almost all of the Ar. *tenuis asp.* (§ 474) as being old inherited, according to which e. g. **sthā-no-* 'stand' (noun), not **stā-no-* would have to be put down as the Indg. form (Skr. *sthāna-* Gr. *ἄσθηνος* Lith. *stóna-s*). But in my opinion we have no right, with the present state of our knowledge, to put down the Indg. prim. forms with *ten. asp.* in such cases where only Aryan points to *tenuis asp.*, but the other languages to *tenuis*. For the question would be asked in vain, why e. g. in Greek does not an **ἄσθην*, but *ἔσθην* (Skr. *ásthām*) stand beside such cases as *ἦσθα ὀλοσθα* with Indg. *sth*, *t^h* (see below), and why do not **πάθο-ς* **πόνθο-ς*, but. *πάτο-ς* *πόντο-ς* correspond to Skr. *path-* *pánthā-* 'path, way'.

Therefore prim. Indg. *tenuis asp.* can, as yet, only be put down with any degree of probability in such words, where the

languages outside the Aryan group exhibit an aspirate or a sound which can be traced back to an aspirate. Such forms are the following:

1. Suffix of the 2. sg. perf. Indg. **-tha*. Indg. **moix'tha* 'knowest' fr. rt. *meid-*, Skr. *véttha* Av. Gāp. *vōista* Gr. *olōtha*. Gr. *ἦσθα ἐησθα* 'wast' (originally a perf. form, see the accidence), Skr. *dsilha*. Lat. *dix-ti dix-is-ti* (for the vowel of the suffix see the accidence). Goth. *last* (*lisa* 'I gather together'), *slōht* (*slaha* 'I strike'), *hlaft* (*hlifa* 'I steal'); after such forms arose *qast* (*qipa* 'I say') *haihāist* (*hāita* 'I name') etc., in which *-ss* was the regular ending (cp. *kāupasta* for **kāupassa* etc., § 527 rem. 3), then also *bart* (*baira* 'I bear'), for **barþ*, etc. 1).

2. Skr. *skhālami* 'I stumble, stick fast, go wrong' Av. *skarayant-* 'leaping, letting leap' (in the proper name *skarayaþ-raþa-*), Arm. *szalem* 'I go wrong, stumble, err, sin', Gr. *σφάλλομαι* 'I stumble, fail, suffer a disaster' (also Lat. *scelus* 'crime, impious action' and OHG. *sculd* 'guilt' Goth. *skulan* 'to owe, shall'?), rt. *sqhel-*.

cf. p. 562 | 3. *chinád-mi* 'I cut off, tear' Av. opt. perf. *hi-sið-yaþ*, Gr. *σχίζω* 'I split' *σχινδαλμός* 'a piece of cleft wood, splinter', Lat. *scindō cuedō*, Goth. *skáidan* 'to divide, separate' OHG. *scintan* 'to flay' rt. *skhaiþ-* *skhaid-*.

4. Skr. *śaṅkhá-s* 'muscle, shell' Gr. *κόγχο-ς*, Lat. *congiu-s*.

5. Skr. *nakhá-s* Mod. Pers. *nāzun* Osset. *nūx* 'nail', Armen. *magil* 'claw, talon' (whence *m-* for *n-* ?), Gr. *ὄνυχ-ος* gen. to *ὄνυξ* 'nail, talon', Lat. *ungui-s*, Mid.Ir. *inga* O.Cymr. *eguin* Mod.Cymr. *ewin* 'nail, talon', Goth. *nagljan* 'to nail', Lith. *nāga-s* O.Bulg. *nogŭtŭ* 'nail, talon'.

Without representation in Aryan are:

6. Armen. *durng* 'potter's wheel', Gr. *τροχός* 'wheel, potter's wheel' *τρέχω* 'I run' fut. *θρέξομαι*, Goth. *þragja* 'I run' OHG.

1) Cp. the ending of the 2. du. act. Goth. *-ts* = Skr. *-thas* or *-tas*. We must assume that original *-ts* stood regularly only in forms like perf. **lēsts*, **lūsts*, **slōhts*, **hlēfts* (transformed into *lēsts*, *lūsts*, *slōhts*, *hlēfts*) and in the pres. **s-tas* or **s-tis* (Skr. *sthás* 'ye two are') and then was transferred to the other verbs. See the accidence.

drigil 'servant' (runner), rt. *thregħ*. It is doubtful whether O.Ir. *traig* 'foot' Gall. *ver-trago-s* name of a kind of dog (= 'great foot, swift runner'?) belong here; cp. O.Ir. *droch* 'wheel'.

7. Lat. *habē*, Goth. *habáiþ* 'has' common stem form **khabhē*.

The Indg. *tenuēs* asp. fell together with the Indg. *mediae* asp. in Greek and Italic (see §§ 495. 509), and with the Indg. *tenuēs* in Germanic (see §§ 528—530. 509). The voiceless spirants, which arose after *s* in Lat. and Germanic, passed into *tenuēs* (cp. §§ 507. 528 end. 541, 7). *Tenuēs* arose after *s* in Balt.-Slav., elsewhere the *tenuēs* asp. fell together with the *mediae* asp. in this branch also, just¹) as in Armen. If O.Ir. *traig* belongs to the rt. *thregħ*, it follows that Indg. initial *th-* was treated differently in Kelt. before *r* from Indg. *qh* after *u* (*inga*).

THE SPIRANTS.

§ 554. Spirants are produced by the mouth channel being narrowed at one part in such a manner that the expiratory current gives rise to a grating noise on the edges of the narrowed part.

The following spirants are to be ascribed to the Indg. prim. language:

1. A voiceless *s*-sound, whose place of articulation cannot be exactly defined (cp. the various *s*-sounds in Sievers' *Phonet.*³ p. 122 f.).

2. The voiced sound *z*, corresponding to this *s*.

Rem. 1. As a hypothesis which is at any rate worth noticing, we may mention here that Bartholomae (Ar. Forsch. I 18 ff. II 54 ff.) ascribes aspirated *s* und *z* (*sh* and *zh*) also to the Indg. prim. language. E. g. he puts down *qshej-* as the rt. for Skr. *kṣīṇāti* 'ruins' Gr. *φθίρω*, and *ghom-*, *ghm-* (the latter with loss of *z*) as the stem forms for Skr. *kṣām-* Av. acc. *zqm* gen. *z^mm-ō* Gr. *χθών* O.Bulg. *zemlja* 'earth'. Cp. also prim. Ar. and perhaps Indg. *bzh* from *bh+s* etc. §§ 469, 6. 470. 482. 552. 589, 4.

1) According to this it would also be possible to trace the suffix Slav. *-dlo-* Gr. *-θλο-* Ital. *-flo-* back to Indg. *-thlo-*, as has been done.

3. The palatal spirant *j*, strictly to be distinguished from consonantal *i* (*i*).

To these is probably to be added:

4. The labial spirant *v*, strictly to be distinguished from consonantal *u* (*u*). *v* and *u* have fallen together in most languages, and as was already mentioned in § 117 it is often difficult to decide whether the one sound or the other is to be assigned to the Indg. prim. form. The surest criterion for Indg. *v* is want of an old inherited weak grade form, in which *v* was fused with the neighbouring vowel to sonantal *u*, e. g. rt. *ves*- 'clothe' (§ 555).

Rem. 2. The question of the separation of Indg. *v* and *u* is so involved and still so little investigated that we must content ourselves here with having referred to it generally.

It has been conjectured that the sound, from which Skr. *h* Gr. Lat. *g* in cases like Skr. *ahám* Gr. *ἐγώ* Lat. *ego* 'I' have arisen, was a spirant which closely resembled *j*. Attention has already been drawn to the uncertainty of this hypothesis in § 469 rem.

Lastly the question may still be raised whether a sibilant was not spoken after the *k*-sound in words in which a Gr. *κτ* stands opposite to a Skr. *kṣ*, as in *tákṣan-* *τέκτων* 'carpenter' *fkṣa-* *ἄρκτο-ς* 'bear', and whether it differed from the Indg. *s* sound which is to be presupposed for cases like Skr. *ákṣa-s* Gr. *ἄξων* 'axle' Skr. *dákṣina-s* Gr. *δεξιός-ς* 'dexter', and was perhaps a *ḥ*. For it has not hitherto been possible to discover a law by which the difference *κτ* : *ξ* might have arisen specially in Greek.

Indg. *s*.

Prim. Indg. period.

§ 555. **septm* 'seven': Skr. *saptá* *sápta*, Arm. *evñ*, Gr. *ἐπτά*, Lat. *septem*, O.Ir. *secht n-*, Goth. *sibun*, Lith. *septyni* O.Bulg. *sedmŭ*. **seno-* 'old': Skr. *sána-s*, Arm. *hin*, Gr. fem. *ἐνη*, Lat. *senex*, O.Ir. *sen*, Goth. superl. *sinista*, Lith. *sėna-s*. Reflexive pronoun **syo-* **syē-*: Skr. *svá-s* 'own' Gr. *ὄ-ς* 'own' *ἐ* 'se', Goth. *svēs* (gen. *svēsīs*) O.Bulg. *svojŭ* 'own'. Rt. *sneigh-* 'to snow': Av. *snaežāiti* Gr. *λείπει* 'snows' *ἀγύ-νυφο-ς* 'much snowed upon',

Lat. *ninguit*, O.Ir. *snechta* Goth. *snáivs* Lith. *snėga-s* O.Bulg. *sněgŭ* 'snow'. Rt. *srey-* 'flow': Skr. *sráv-a-ti* Gr. *ῥέει* 'flows', O.Ir. *sruth* OHG. *stroum* 'stream', Lith. *sravà* 'a flowing, bleeding' O.Bulg. *o-strovŭ* 'island'. Rt. *sta- stə-* 'stand': Skr. *sthí-ti-ṣ* Gr. *στά-σι-ς* 'a standing', Lat. *statiō*, O.Ir. *-tau* 'sum' from **stā-īð*, Goth. *stap̃s* 'stead', Lith. *stóna-s* O.Bulg. *stanŭ* 'stand' (noun). Rt. *ves-* 'clothe': Skr. *vás-tē* 'puts on' (perf. *va-vas-ē*), *vás-ana-m* *vás-tra-m* 'cloak, dress' *vás-man-* 'cover', Arm. *z-ges-t* (gen. *z-gesti*) 'dress' *z-ge-nu-m* 'I dress myself' (*z-* prefix), Gr. Hom. aor. *ἔσ-σαντο* *ἔσαντο* 'they put on' *ἐσ-θής* 'clothing' *εἶμα* Lesb. *Φέμυα* 'dress', Lat. *ves-ti-s*, Goth. *ga-vas-jan* 'to dress' MHG. *wester* 'baptismal robe'. Rt. *dhers-* 'dare': Skr. *dhárṣ-ami* 'I dare', Gr. *θάρσ-ος* 'boldness' *Θερασ-τρης* prop. name ('bold one'), Goth. *ga-dars* 'I dare', Lith. *drĩs-ti* 'to dare' (§ 285 rem.). **aks(i)-* 'axis': Skr. *ákṣa-s*, Gr. *ἄξων*, Lat. *axi-s*, OHG. *ahsa*, Lith. *aszi-s* O.Bulg. *osŭ*.

s a frequent suffixal element. *-sjo-* future and *-s-* aorist suffix: Skr. *dhā-syā-mi á-dhā-s-am* from rt. *dhē-* 'put, place', *dēk-ṣyā-mi á-dik-ṣ-ata* (3. pl. mid.) from rt. *deĩk-* 'show', *á-sahi-ṣ-ata* from rt. *segh-* 'subdue'; Gr. *ῥέειξ-α*, *ῥέειξ-α* (on the function of the latter cp. the accident); Lat. *dīx-ī*, *fax-ī-s*, *vīder-ī-s*; O.Ir. aor. conj. (= fut.) 2. sg. *for-tēis*, 2. pl. *for-tēsíd* from **-tēssis*, **-tēssit(e)*, prim. f. **steigh+s-e-s*, *-te*, to pres. *for-tiagaim* 'I help' (cp. Gr. *στέλλω*); Lith. fut. **dē-siu* from rt. *dhē-*, *vīlk-siu* from rt. *uēlq-* 'trail, drag', O.Bulg. part. fut. *byśašte-je* 'τὸ μέλλον' (to Lith. *bū-siu* 'I shall be'), aor. *dē-chŭ*, 2. pl. *dē-s-te*, from rt. *dhē-*. Personal ending of the 2. sg. *-s* as in **bhéroĩ-s* 'feras' **s-iē-s* **s-iē-s* 'sis': Skr. *bhárē-ṣ syā-s*, Gr. *φέροις εἶης*, Lat. *ferē-s siē-s sī-s*, Goth. *batrái-s* OHG. *sī-s*, O.Bulg. *beri* (from **berē-s*). Noun-stem suffix *-es-* (as **gén-es* neut. 'genus'): gen. sg. Skr. *ján-as-as*, Gr. *γέν-ε-ος γέν-ους*, Lat. *gen-er-is*, O.Ir. *tige* 'of the house' = Gr. *στίγε-ος τέγε-ος*, Goth. *riq-iz-a* neut. 'darkness' (cp. Skr. *rāj-as-*), Lith. nom. *deb-es-ī-s* 'cloud', O.Bulg. gen. *neb-es-e* 'of the sky' = Skr. *nábhas-as*. Sign of the nominative *-s* (as in **ékʷo-s* 'equus'): Skr. *ásʷa-s* Gr. *ἵππο-ς* Lat. *equo-s*, Gall. *tarvo-s* 'bull', Goth. *vulf-s* Lith. *vilk-a-s* 'wolf'.

Aryan.

§ 556. Indg. *s* experienced several changes in the period of the Aryan primitive community.

1. *s* passed into *ś* and *ss* into *śś* after *i ī* and *u ū*, *i* and *u* (as second component of diphthongs), *r ṛ*, *r*, *q*, *k*. By this means Indg. *st* and *kt*, *sq* and *kq* and probably also *ss* and *ks* fell together at that period, see §§ 396. 399. 401.

This *ś* remained in Iranian, but in Sanskrit it was further changed to cerebral *ṣ*, and *śś* (= Indg. *ss* and *ks*) became *kṣ* (as *ss* became *ts*, see § 557, 1).

After *i-* and *u-*vowels. 3. sg. pres. act. Skr. *tī-ṣṭh-a-ti* Av. *hi-št-a-iti*, O.Pers. 3. sg. imperf. mid. *a-i-št-a-tā*, from rt. *stā*- 'stand': Gr. *ῑ-στῆ-μι*, Lat. *si-stō*. Skr. *ni-ṣṭh-a-ti* 'he sits down', causat. *ni-ṣādayāmi* Av. *ni-ṣādayēmi*; O.Pers. *niy-ašādayam* with *ś* carried over into the augmented form (like Skr. *ny-aṣṭdam* beside regular *ny-aṣṭdam*, *pary-aṣahata* beside regular *pary-asahata* imperf. to *pari-ṣahatē* 'he endures', *savya-ṣṭhār-* after *savyē-ṣṭhar-* 'standing on the left'). Nom. Skr. *pāti-ṣ* Av. *paiti-ṣ* 'master': Gr. *νόσι-ς*. Loc. pl. *áśvē-ṣu* Av. *aspaē-ṣu* -*ṣv-a* O.Pers. *aspai-ṣuv-a* (*áśva-* *aspa-* 'horse'), cp. Skr. *sēna-su* Av. *haēna-hu* -*hv-a* O.Pers. *hainā-uv-a* (*sēna-* *haēna-* *hainā-* 'army'): O.Bulg. *vlūčē-chū* (*vlūkū* 'wolf') beside *raķa-chū* (*raķa* 'hand'). Part. Skr. *uṣṭá-* Av. *uṣtu-* = Lat. *ustu-s*, Indg. **us-to-s*, rt. *eys-* 'burn'. Skr. *śuṣ-ka-* (from **suṣ-ka-*, § 557, 4) Av. *huṣ-ka-* O.Pers. *uṣ-ka-* 'dry', prim. f. **sus-go-*, rt. *sayu-*. Skr. *jōṣ-a-* Av. *zaoṣ-a-* 'favour', Skr. *jōṣṭār-* 'loving' O.Pers. *dauštar-* 'friend': Gr. *γευσ-τέο-ν* 'meet to be tasted', Lat. *gus-tu-s*, Goth. *kius-a* 'I test, choose'. Skr. 2. sg. *dvēkṣi* 'thou hatest' from **dvēṣ-ṣi*, 1. sg. *dvēṣ-mi*. Skr. fut. *śōkṣyāmi* 'I shall dry up' fr. **śōṣ-ṣyāmi*, pres. *śúṣ-yāmi* (§ 557, 4), cp. Gr. fut. *αῖσω* fr. **αῖσ-σω*, rt. *sayu-s* 1).

1) Some assume that Skr. *ṣ* also regularly stands for *s* after *i*, *u*, e. g. *piṣ-ānti* 'they pound': Lat. *pīnsō*; then the forms *pīnāṣ-mi* etc. for **pīnas-mi* etc. would have been formed after the analogy of *piṣ-* (cp. Av. *cinah-mi* 'I announce' 3. sg. *cinas-ti*, from *caṣ-*). I consider not only *pīnāṣ-mi* but also *piṣ-ānti* as a new formation (after *pipēṣa*, *piṣṭá-* etc.). For in the period of the Ar. prim. community, when *s* became *ś*, the preceding

After *r*-sounds. Skr. *dhṛṣ-ñō-mi dhārṣ-ami* 'I dare', Av. *der'š-nao-mi* 'I dare' *darš-i-š* 'vehement', O.Pers. *a-darš-nau-š* 'he dared' (-š taken over from the *s*-aorist). Skr. *śīrṣ-ā-m* 'head': Gr. *κόρυς* 'head, temple', Indg. *kṛs-* (§ 306).

Indg. *qs* = prim. Ar. *kš* : Skr. *kṣ* Av. *xš*. Future Skr. *vakṣyāmi* Av. Gāp. *varšyā* 'I shall speak', nom. Skr. *vāk* from **vākṣ* (§ 647, 7) Av. *vāxš* = Lat. *vōx*, rt. *ueq-*.

Rem. 1. The Av. combination *xš* became voiced in the dat. abl. pl. *vāyž'-byō* which was formed anew from the nom. sg. Cp. *awž-dāta-* § 558, 2.

Indg. *ks* : Skr. *kṣ* Av. O.Pers. *š*. 2. sg. Skr. *vákṣi* Av. *vaši* 'thou art willing', to 1. sg. *váš-mi* *vas-'mi*, rt. *uek-*. Cp. § 401.

2. *sc* (Indg. *sq*) became *šc* or *śc* : Skr. *śc* Av. *sc* O.Pers. *šc*. Skr. *káš-cid* Av. *kas-ciḥ* O.Pers. *kaš-ci-y* 'any one'. Av. *sc* : Skr. *śc* = Av. *nc* : Skr. *ñc* (*panca* : *pāñca*), see § 200.

3. Final *s* in prim. Ar. *-as* and *-as* underwent a change which gave to these endings the form *-ō* and *-a* in Skr., *ō* and *-a* (Gāp. *-ā*) in Av., e. g. nom. sg. Skr. *áśvō* Av. *aspō* = prim. Ar. **aśya-s*, nom. pl. Skr. *áśvā* Av. *aspa* (*aspa*) = prim. Ar. **aśyas*. This change cannot have taken place before voiceless dentals and palatals, as is shown by the combinations Skr. *aśvas tad*, *aśvaś ca* etc. and Av. *aspas ca* etc., also not in pausa, as clearly follows from the Skr. usual forms *áśvah*, *áśvāh* (Av. *aspā*, the more rare secondary form of *aspa*, seems to be most closely related to *áśvah*). It may however belong to Skr. *-h* from Indg. *-s* in as much as *-ah* *-ah* might both be regarded as the previous stages of Skr. *-ō*, *-a* Av. *-ō*, *-a*. It is not improbable that the *-ah*, *-ah*, which arose in pausa in prim. Ar., forced their way at that period into the place of *-az*, *-az* before voiced explosives and spirants and of *-as*, *-as* before vowels; and whilst they were now retained in pausa down to the time of

nasals cannot at that time have been so absorbed in the vowels, that only a nasal vowel was spoken, and the latter would in all appearance be the necessary presupposition for the influence of the *i* or *u* on the *s*-sound. Cp. § 199 rem. 1. *hīṣanti* 'they injure', *nīṣatē* 'they kiss', gen. *puṣ-ās* 'of the man' show the regular development.

the Skr. separate development, where they settled also before *k*, *p*, and *-āh* became *-ā* in Av., they regularly passed into *-ō*, *-a* before voiced sounds; and these two stages might have been reached already in the prim. Ar. period. When *-ō* came to stand before other vowels than *a* in Skr., it became shortened to *a*, e. g. *aśva upa*; whereas **aśvō api* became *aśvō 'pi*. Cp. Bloomfield in the American Journal of Philology III 25 ff., Osthoff Zur Gesch. d. Perf. 36 ff., furthermore §§ 646. 647, 1 and 6. 649, 7.

Rem. On O.Pers. final *-a* = prim. Ar. *-as* see § 558, 4.

§ 557. The Indg. *s*, which had come over from prim. Ar., mostly remained unchanged in Sanskrit, e. g. *saptā* 'septem', *āsti* 'est', *jānas-as* 'generis'. Changes took place in the following cases:

1. Prim. Ar. *-ss-* became *-ts-*, just as prim. Ar. *-šš-* led to *-kš-* (§§ 401. 556, 1) and probably prim. Ar. *-sš-* to *-tš-* (2 below). *vatsyāmi* from **vas-syāmi* fut. from *vas-* 'clothe' (cp. Gr. fut. ἔσσω). *vatsyāmi* fut., *āvātsam* aor. from *vas-* 'stay, dwell' (cp. Gr. ἄεσα). Loc. pl. *vid-vātsu* from **vid-vas-su*, to acc. sg. *vid-vāts-am* instr. sg. *vid-ūṣ-a*, part. to *vēda* 'I know'. *-dhvatsu* loc. pl. to *-dhvas-* 'falling', the final member of compounds. The *-t* of the form *tānt* acc. pl. masc. 'the', which appears before *s*, had perhaps also arisen from *s* (cp. *tāts* before *t-*, elsewhere generally *tān*). Av. *-s-* corresponded to this *-ts-*.

Rem. The *ss* in the loc. *vācassu* (*vācas-* 'word', cp. Gr. ἑρεσσὶ ἑρεσσὶ), *māhiyassu* (*māhiyas-* 'greater' cp. Gr. μελλοσι), *māssu* (*mās* 'moon, month') is due to analogy. In like manner also *āssē* 'thou sittest' (Gr. ἵσσει) for **ātsē* after *āstē* etc. *vidvātsu* in union with *vidvādbhiṣ* and the other *bh*-cases, in which *dbh* arose from *zbh* (§ 591), produced the form *vidvāt*. Cp. the coincidence.

2. Indg. *śk* appears as *ch* (*cch*) = Iran. *s*. *gā-chā-mi* (*gācchāmi*) 'I go': Av. *ja-sā-mi*, Gr. βά-σκω, Indg. **gṇ-skō*. See § 400. *sš* was probably spoken in the prim. Aryan period. *sš* passed into *tš* in Skr. (cp. *ts* from *ss* above), and this into *ch*, as in *pachās* (*pacchās*) 'pada by pada' from **pat-śas* from *pad-* (§ 351). *tānchatrūn* acc. 'these enemies' = *tān(s)* + *śatrūn* is

perhaps also to be traced back to **tāntšatrūn* with transition of *śś* to *tś*. Cp. *tānt* before *s*- above.

3. *s* was dropped between *t* or *p* and following explosive or spirant. *áchāntta* from **a-chānt-s-ta* 2. pl. of the *s*-aorist from *chand*- 'shine'; *utthā*- 'rise' from **ut-sthā*-, e. g. inf. *utthātum*; correspondingly *sattā*- = Av. *hasta*- from prim. Ar. **satstā*- Indg. **set'tó*-, part. from rt. *sed*- 'sit' (§ 469, 4). *átapta* from **a-tap-s-ta* 2. pl. of the *s*-aorist to *tápati* 'is warm'. Cp. the analogous treatment of *z* at the end of § 591.

4. *s* became *ś*, if *ś* or *š* stood at the beginning of the next syllable.

śvāśura- 'father-in-law' from **svaśura*-, cp. Av. *xwasura*- Gr. *ἐκϋρός* Goth. *svaihra*. *śmāśru*- 'moustache': O.Ir. *smech* Lith. *smakrà* 'chin' (§ 467, 2), perhaps also Lat. *maxilla*. *śa-śvant*- 'complete, whole, each' fr. **sa-śvant*-, cp. Gr. *ἄ-πᾶς* (§ 166).

śušká- 'dry' *śúšyati* 'drys in' fut. *śókšyáti* (from **śōššyati*, § 556, 1): Av. *huška*- O.Pers. *uška*- 'dry', rt. *says*-. The change of the initial *s* might have taken place here at the time when the root-final *s* was already an *ś*-sound, but had not yet acquired the cerebral articulation (*ś*).

The same assimilation as in *śvāśura*-, only in the opposite direction, seems to exist in *śaśá-s* 'hare': OHG. *haso* Ags. *hura* (*r* from *z*, § 581) Pruss. *sasn-i-s* 'hare'.

Cp. the analogous assimilation in Lith., § 587, 2.

§ 558. Prim. Ar. *s* was retained in Iranian before *n*, *p*, *t*, *k* and after *t*. It became *š* after *p* (*f*). In other cases it either became an aspirate or disappeared.

1. Retention of *s*. Av. *snaēžaiti* 'snows': Goth. *snáivs* 'snow', rt. *sneigh*-. Av. *sās-na*- 'a teaching': Skr. *śās-ana*- 'assignment'. Av. *spas*- 'spy': Skr. *spáš*- Lat. *au-spez*. Av. *as-ti* O.Pers. *as-tiy* 'is': Skr. *ás-ti* Gr. *ἔσ-τι*. Av. *skemba*- 'pillar': Skr. *skambhá*-. *s* along with a preceding *t* became *ss*, whence *s*, as in Av. *masya*- 'fish' = Skr. *mátsya*-, see § 473, 2 p. 349.

2. *š* from *s* after *f* (cp. § 473), except when *r*, *tr* followed, in which case *s* remained (Bartholomae Handb. § 149 rem. 1). Av. *drafša*- 'drop': Skr. *drapsá*- 'drop'. *afš* (acc. *ap-em*) 'water':

Skr. *áp* from **aps* (§ 647, 7). With *afš* the new formation *awš-data-* 'resting in the water', where *fš* had become voiced, cp. *vayš-byō* § 556 rem. 1.

3. Aspirates from *s*.

Initially.

Av. O.Pers. *h* before prim. Ar. *a* *ā*, *i* *ī*, *y*. Av. O.Pers. *hama-* 'equal': Skr. *samā-*. Av. *haēnā-* O.Pers. *hainā-* 'army': Skr. *sēnā-*. Av. *hindu-š* O.Pers. *hidū-š* (§ 197 rem.) 'country of the Indus': Skr. *sindhū-š* 'river, Indus'. Av. opt. *hyaḥ* 'it may be': Skr. *syāt*. O.Pers. *hya* 'qui' (relat.): Skr. *syá* 'that'. In Av. also before *u*, *ū*, and in the Gāpā dialect before *v*. *hu-* 'well, very, rich': Skr. *su-*. Gāp. *hva-* 'own': Skr. *svá-*.

For *hy-* Gāp. also *xy-*. For Gāp. *hv-* Late Av. *xw-*. See its treatment medially.

In O.Pers. *h* is wanting before *u* and *uy* = *y*. *u-* 'well': Av. *hu-* Skr. *su-*. *uva-* 'own': Av. Gāp. *hva-* Skr. *svá-*. Cp. medially.

Prim. Ar. *sm-* = Av. *m-* (intermediate stage **hm-*): *maraiti* 'is mindful': Skr. *smārati*; *mahi* 'sumus': Skr. *smāsi*. Prim. Ar. *sr-* = O.Pers. *r-*: *rauta* neut. 'river': Skr. *srótas* neut. It cannot be decided whether *s* had also disappeared in O.Pers. before *m* and in Av. before *r*.

Medially.

Av. *h* after prim. Ar. *a*-vowels before *i* *ī*, *u* *ū*. 2. sg. *bara-hi* (Gāp. *bara-hī*) 'fers': Skr. *bhára-si* Goth. *batri-s* O.Bulg. *bere-ši*. *ahura-* 'master': Skr. *ásura-* 'alive, spiritual, spirit'. *yahu* loc. pl. from stem *yā-* 'quae': Skr. *yá-su*.

Av. *nh* between *a*-vowels. Sg. instr. *manarəh-a* dat. *manarəh-ē* gen. *manarəh-ō* (*manah-* neut. 'sense, mind', Gr. *μῆρος*) = Skr. *mānas-a*, *-ē*, *-ō*, prim. Ar. **manas-a*, *-aḥ*, *-as*; cp. loc. *manah-i* = Skr. *mānas-i*. Conj. 3. sg. *arəh-aḥ* from *ah-* 'be': Skr. *ásat* Lat. *erit*. *yārəham* gen. pl. from *yā-*: Skr. *yá-sām*, cp. Av. loc. *yā-hu*.

O.Pers. *h* corresponded to this Av. *h* and *nh* except before *u*. 2. sg. conj. *bavā-hy* 'sis': Av. *bavā-hi* Skr. *bhāvā-si*.

nāha-m acc. 'nose': Av. *nānaha-* Skr. *nāsa-*. *h* is wanting before *u*, as initially (see above). *aura-mazdāh-* Ormazd: Av. *ahura-*. It is improbable that *h* was here also entirely unpronounced, cp. below on *uv* = prim. Ar. *sʷ*.

Rem. 1. *h* remained here and there unwritten in O.Pers. also before other vowels than *u*, e. g. imperf. *a-ištata* 'he placed himself', op. Av. pres. *hištatai*; *pātiy* (probably to be read *pātiy*) for *pahatiy* 'he announces' beside imperf. 3. sg. *aṇaha*.

Av. *h* before *r* (also written *ṛ*, *ṛg*, *ṛh*). *ha-zañra-* 'thousand': Skr. *sa-hāsra-* Gr. Lesb. *χέλλιοι*, Indg. **gheslo-*.

Av. *hm* O.Pers. *m* from *sm*. Av. *ahmi* O.Pers. *amīy* 'sum': Skr. *ās-mi*. Av. *ahmākem* O.Pers. *amāxam* gen. 'of us': Skr. *asmākam*.

Av. *ñh* Gāp. *hy*, O.Pers. *hy* from prim. Ar. *sʰ*. Av. *vañhō* Gāp. *vahyō* 'melius': Skr. *vās-yas*. O.Pers. gen. sg. *kāra-hyā* (*kāra-* m. 'people, army') Gāp. *haoma-hyā* (*haoma-* 'somadrink'): Skr. *sōma-sya*. For this and the initial *hy* in Gāp. also *xy*: *axyā* beside *ahyā* 'huius': Skr. *asyā*; *xyāp* 'sit': Skr. *syāt*.

Prim. Ar. *sʷ* became Av. *xw* and *ṛuh*. *haraxwaiti-* = Skr. *sārasvat-i-* prop. name, cp. initial *xw*, as *xwa-* 'own' = Gāp. *hva-*. 2. sg. imper. mid. *bara-ṛuha* = Skr. *bhāra-sva*, rt. *bher-* 'bear'. The duality *xw*: *ṛuh* was originally probably such that *xw* made its appearance under the conditions by which *s* without *ʷ* passed into *h*, but *ṛuh*, where *s* without *ʷ* had become *ṛh*. Also for medial *sʷ* in Gāpā *hv*: imper. *gūša-hva* 'hear', cp. *hva-* 'own'. In O.Pers. *uv* from *sʷ*. 2. sg. imper. *pāti-paya-uvā* 'protect thyself': Skr. *-sva*, cp. *uva-* 'own'. The pronunciation of this *uv* is not clear, it follows however from Gr. *Ἰουρασμαία* = O.Pers. *uvārazmī-š* and similar forms, that a spirantal element was not wanting. Cp. § 159 p. 143.

4. Aryan final *-s* was entirely lost in O.Pers. (but not so *-š*, cp. *kūrū-š* Cyrus). Nom. sg. *aniya* 'alius' (stem *aniya-*): Av. *anyas(-ca)* *anyō* Skr. *anyás anyō*. Nom. acc. sg. neut. *rauca* 'day' (st. *raucah-*): Av. *raocas(-ca)* *raocō*. 2. sg. impf. *gaudaya* 'thou concealedst': Av. *-ayas(-ca)* *-ayō*. It is not clear whether prim. Iran. *-s* was dropped here or whether we have to do

with the offspring of an already prim. Ar. further development of *-as* (see § 556, 3).

Rem. 2. If it were certain that the nom. *napā* 'grand-child' had arisen from **napās* and were identical with Skr. *nāpāt* from **napāts*, the form *aniya* would be supported as the regular continuation of prim. Pers. **anyas*.

Armenian.

§ 559. *s* was retained before *t*, *x*, in combination with *s* and after (dropped) *n*, *m*. *astλ* (gen. *asteλ*) 'star': Skr. *stṛ-* Gr. *ἀστὴρ* Lat. *stella* Goth. *stairnō* 'star'. *sterf* 'barren' (of animals): Skr. *starī-* Gr. *στεῖρα* Lat. *sterili-s* 'unfruitful', Goth. *stairō* 'barren woman'. *z-gest* 'dress': Lat. *ves-ti-s* etc., see § 555. *sxalem* 'I go astray, err': Skr. *skhālāmi* 'I stumble', Gr. *σφάλλομαι* 'I stumble, fail', rt. *sqhel-*. 2. sg. *es* 'art' from **es-si*: Gr. Hom. *ἔσσι*. *amis* (gen. *amsoy*) 'month': Gr. Lesb. gen. sg. *μῆν-ος* from **μηνσ-ος*, Lat. *mēns-i-s*, O.Ir. gen. *mīs*, cpf. **mēns-*. Acc. pl. *eris* 'three' from **tri-ns*: Goth. *þri-ns*. *us* (gen. *usoy*) 'shoulder': Skr. *āsa-s* 'shoulder', Umbr. *onse* loc. 'in umero', Goth. *ams* m. 'shoulder', Indg. **ómso-*.

§ 560. Initial *s* disappeared before sonantal vowels and before nasals. *al* 'salt': Gr. *ἄλ-ς* Lat. *sāl* O.Ir. *salann* Goth. *salt* O.Bulg. *solī* 'salt'. *evēn* 'seven': Skr. *saptá* etc., see § 555. *amařn* 'summer' OHG. O.Icel. *sumar* 'summer' (§ 232). *m-i* (gen. *m-iof*) 'one' from **sm-*: Gr. *μία* 'one' fem. from **σμ-ια*, *μῶνς* 'with single uncloven hoof' from **σμ-ωνς*, Indg. **sm-* weak stem-form beside *sem-* (Gr. *ἐν*). *nu* (gen. *nuoy*) 'daughter-in-law' Skr. *snuṣā-* OHG. *snur* O.Bulg. *snūcha* 'daughter-in-law'. *neard* (gen. *nerdi*) 'nerve, sinew': Skr. *snāvan-* 'string, sinew': Av. *snāvar-* 'sinew'. *h-* occurs however before vowels in two words at least without any apparent reason: *hin* 'old': Skr. *sāna-s* etc., see § 555; *h-* from **hu-* prefix, e. g. *h-lu* 'obedient': Skr. *su-* O.Ir. *so-* *su-* 'well, very'.

þ- probably from *sp-* in *þoit* 'σπονδή'. *č-* from *spi-* probably in *čuk* 'spattle' *e-čuk* 'he spat': Gr. *πτόω* from **(σ)πι-ω* Lat. *spuō* Lith. *spiau-ju* 'I spit' (cp. § 149).

š- from *sy-* (cp. *g(u)* from *u*, § 162). *šoir* 'sister': Skr. *svāsar-* Lat. *soror* from **syesōr* (§ 172, 3) Cymr. *chwaer* Goth.

svistar Pruss. *swestro* 'sister', Indg. **syésor-*. *kirtn* (gen. *krtan*) 'perspiration' (-*rt-* from -*tr-*, § 263) : Skr. *svidyāmi* 'I perspire', Gr. ἰδρώς Lat. *sūdor* from **syoid-ōr* (§ 170 p. 150.) Cymr. *chwys* 'perspiration' OHG. *sweiz* 'perspiration', rt. *sweid-*. *kun* (gen. *knoy*) 'sleep' : Skr. *svāpna-s* Lat. *somnu-s* from **syepno-s* (cp. *soror*) O.Icel. *svefn* 'sleep'.

Rem. If *reç* 'six' in Armen. arose from **syēks*, the duality *k-* and *r-* = *sy-* must probably be placed on a level with the duality *g* and *r* in *loganam* and *kor* (§ 162). But it may also represent a pre-Armenian form **yeks*, see § 589, 3.

§ 561. Medially and Finally.

epem 'I cook' to Gr. ἑπο-ν *ōpo-v* with orig. *ps*?

ç = Indg. *ks* and *sk* *veç* 'six' : Gr. ἕξ Lith. *szesz-i* (cp. § 560 rem.). *harç* 'quaestio' *harç-ane-m* 'I ask' : Skr. *pychāmi*, Lat. *poscō*, OHG. *forsca*, prim. f. **py(k)-sk-*. See § 408.

The *š* in *gišer* 'night' is not clear : Gr. ἑσπέρα Lat. *vesper* O.Ir. *fescor* Cymr. *ucher* Lith. *vākara-s* O.Bulg. *večerŭ* 'evening'.

The *j* in *arj* 'bear' (Skr. *ṛkṣa-s* Gr. ἄρκτος Lat. *ursus*) probably arose from *č* (p. 358 footnote 1), but on account of Gr. ἄρκτος, it is questionable whether the Indg. prim. form contained *s*, cp. § 554.

-*y* from -*si-*. Gen. *mardo-y* (*mard* 'man, homo') : Skr. *mytā-sya*, Gr. Hom. βροτοῖο from *-*o-siō*.

Intervocalic *s* disappeared. *koir* 'sister', pl. *kor-k* : Skr. *svāsā svāsār-as*. *nu* 'daughter-in-law' : Skr. *snušā*.

s disappeared between a vowel and *k* (Indg. *q*), *r*, *m*, *n*. *mukn* (gen. *mkan*) 'mouse, muscle' : Skr. *muṣ-kā* 'testicle' *maṣaka-s* *mūṣikā* 'rat, mouse', Lat. *mus-culu-s*, O.Bulg. *myšica* 'arm'. *bok* 'bare footed' prim. form **bhos-qo-s* : OHG. *bar* 'naked, only' prim. Germ. **bazā-s*, O.Bulg. *bosŭ* 'bare footed'. Gen. *ker* 'sororis' : Goth. *svistrs*, prim. f. **syesr-os* or -*es*. *em* 'I am' : Skr. *āsmi*, Indg. **ēs-mi*. Pronominal dative ending -*um*, e. g. *im-um* 'to my' or -*um* 'to which' : cp. Skr. -*a-smāi* in *tā-smāi* 'to the', Pruss. -*e-smu* in *ste-smu* 'to this'. *z-ge-nu-m* 'I dress' : Gr. Ion. εἵνμι from **ḡeō-vē-mi* (§ 565), rt. *ves-*, see § 555.

s disappeared after *r* (probably only under certain conditions).

i ver 'up, above, over', *i veroy* 'above': Skr. *vārṣīyas-* 'higher' Lith. *virsz-ù-s* 'the upper part, point' (Hübschmann Ztschr. d. deutsch. morg. Ges. XXXVI 121). *tar-am-im* 'I cause to fade, dry up': Skr. *tarṣ-a-s* 'thirst'. Gr. *τέρσομαι*, 'I become dry', Lat. *torreō*, Goth. *ga-þairsan* 'to be arid, gape from dryness', rt. *ters-*. But beside this appears also *taršam-im*, the relation of which to *tarām-im* is not clear to me.

s disappeared finally after vowels. Nom. sg. *mard* 'homo': Skr. *mṛtá-s*. Gen. sg. *haur* 'of a father': Gr. *πατρός*. But acc. pl. *z mards* Indg. **mṛtó-ns*, cp. Goth. *vulfa-ns*.

§ 562. Indg. *s* seems to have been assimilated to the *k* at the beginning of the following syllable in *skesur* (gen. *skesri*) 'mother-in-law': Gr. *ἐκνρά*, Goth. *swigar*, Indg. **smēkrū-*; *sk-* thus = *k-*, see § 162. Cp. Skr. *śvaśrū-* § 557, 4 and Lith. *szeszura-s* § 587, 2.

Greek.

§ 563. *s* was preserved down to historical times in the following cases:

1. In combination with voiceless explosives. *σπαίρω* 'I pant, gasp': Skr. *sphurāmi* 'I push away with my foot, pant, tremble', Lat. *spernō*, OHG. *sporo* 'spur', Lith. *spiriū* 'I push with my foot', rt. *sper-*. *ἀλείψω* 'I shall anoint': Skr. *lēpsyāmi* 'I shall spread upon, besmear', Lith. *lpsiu* 'I shall remain sticking', rt. *leip-*. *ἥσ-ται* 'sits': Skr. *ās-tē*. *ἥσ-θα* 'thou wast': cp. Skr. *ās-i-tha* (cp. § 553). Aorist Hom. *πάσασθαι* 'to eat, consume' from **πατ-σασθαι*, to pres. *πάσσομαι*; with reduction of the *σσ* to *σ* Hom. *ἐπάσαντο* (cp. § 490). *βάσχω* 'I go': Skr. *gáchami*, Indg. **gṇ-skō*, rt. *gem-*. *ἄξ-ων* 'axis': Skr. *ákṣ-a-s* etc., Indg. **aks-*, see § 555. *σκάνδαλον* 'stumbling-block': Skr. *skándami* 'I jerk, leap upon', Lat. *scandō*, O.Ir. perf. *ro se-scaind* 'he leapt', rt. *sqand-*. *σφάλλομαι* 'I stumble, stagger, fail': Armen. *szalem* etc., rt. *sqhel-* (§ 553). Fut. *λείψω* 'I shall leave': Skr. *rēk-śyāmi* 'I shall leave, give up to', Lith. *lksiu* 'I shall leave', rt. *leiq-*.

Rem. 1. For the *πτ* in *τέκτων* 'carpenter' *ἄρκτο-ς* 'bear' *πτίσι-ς* 'a founding' (Skr. *tákṣā* *ṛkṣa-s* *kṣi-ti-ṣ*) etc. see § 554.

2. In combination with *s*. Hom. aor. ζέσ-σ-α, to ζέω 'I seethe, bubble': Skr. *yás-āmi* 'I bubble seethe, boil', OHG. *jēsan* 'to ferment, froth', rt. *jēs-*. Hom. loc. pl. ἔπεσ-σι (ἔπος 'word'): cp. Skr. *vācas-su*, § 557 rem. This σσ became σ at the same time with the σσ = *ts* (above n. 1 and § 490) and σσ = *tṣ* *thṣ* (§ 489). Hom. already ἔπεσι etc., Att. only σ, ἔζεσα ἔπεσι.

3. With preceding ρ (Indg. *r*, *ṛ*, *ṛ̥*). Aeolic θέρσος (cp. Θερσίτης) Att. θάρσος 'boldness', rt. *dhers-*, see § 555. σ-aorist Hom. ἔφθερσα (φθείρω 'I destroy'): cp. Skr. *ābhārṣam* (*bhārāmi* 'I bear'). ἔρση 'dew': Skr. *varṣ-ā-* 'rain'. ἄρσην Ionic ἔρσην 'masculine': cp. Skr. *ṛṣā-bhā-* 'masculine, bull' Av. *aršan-* O.Pers. *-aršan-* 'man, male' or Skr. *vṛṣan-* 'masculine, bull'. κόρσ-η 'head, temple': Skr. *śirṣ-ā-m* 'head', Indg. *kṛs-*, see § 306. Probably also with λ. τέλσ-ο-ν 'boundary', which either represents the weakest stem-form of τέλος (τελεσ-) with ο extension or, what is more probable, belongs to Skr. *kārṣ-āmi* 'I furrow, plough' (rt. *qels-*, § 427*b*) and was only popularly connected with τέλος. Hom. aor. ἔκελσα, to pres. κέλλω 'I move, drive'.

ρρ from ρσ in later Attic: θάρρως, ἄρρην, κόρρη.

Rem. 2. Hom. ἔκειρα, Att. ἔφθειρα ἔστειλα beside Hom. ἔκερσα ἔφθερσα ἔκελσα were new forms, made after the analogy of forms like ἔκτεινα ἔνειμα (from nasal stems),

4. In the combination *nsi*, whence σσ. πτίσσω from *πτινσ-χω 'I bruise, pound': Lat. *pīnsiō pīnsō*, Skr. 3. pl. *piṣ-ānti* 'they pound' 1. sg. *piṇāṣmi* (cp. p. 410. footnote 1). νίσσομαι from *νι-νσ-μο-μαι 'I go away, return home' beside νόμομαι from *νεσ-ο-μαι: Skr. *nās-āmi* 'I approach some one, I unite myself to some one', OHG. *gi-nesan* 'to recover, remain alive'.

5. Finally. ἵππο-ς 'horse': Skr. *áśva-s*, Lat. *equo-s*. ἡδύ-ς 'sweet': Skr. *svādú-ṣ*. ἔφερες 'thou didst bear': Skr. *ābhara-s*. Acc. pl. masc. Cret. τό-νς Att. τοίς 'the': Goth. *þa-us*. Nom. κύκλ-ων 'round-eyed', like Lat. *vōx* Av. *vāxš* 'voice'. Nom. νεό-της 'youth': Lat. *novi-tās*, Indg. **tāt-s*.

6. In the initial combination *sm*. σμερδαλί-ος 'terrible': OHG. *smerto* 'pain' Mid. Engl. *smerte* 'sharp, bitter'. Beside these also the assimilation of the σ to μ, as in μειδῆσαι 'to

smile' *φιλο-μμειδής*, to Skr. *smáy-a-tē* 'he smiles'; *μία* 'una' from **σμ-ια* fem., to *έν* neut. from **sem*; which is to be explained from the different conditions of sandhi (cp. § 589, 3).

§ 7. It is not quite certain that initial *sm* became *σσ*, *σ*. The following comparisons have been made *ἴσσο-ς ἴσο-ς* Cret. *ἴσσο-ς* 'equal' with Skr. *viṣu* 'in both directions' *viṣuva-m* 'aequinoctium'¹⁾ and Arcad. *ἡμι-σσο-ς* 'half' with Av. *pri-šva-* 'third part' (on *ἡμισυν-ς* see Osthoff Morph. Unt. IV 187).

Rem. 3. Imper. *φέρεο φέρου* not = Skr. *bhára-sra*, but = Av. *burā-ṇha* Indg. **bhére-so*. *ἔο-ς* 'arrow' to Skr. *īṣu-ṣ* 'arrow', but it did not arise from **ισφο-ς*, but either *o-* and *u-*stem existed side by side from the beginning, or *ἔο-ς* had been carried over into the *o*-declension from **iu-ς*, cp. *νός-ς* : Lat. *nuru-s*, *νῖ-ς* beside *νίῦ-ς*.

If the above comparisons are right, it would then be possible to explain the initial *σ* = *sm*- instead of *f*- *h*- (§§ 166. 564) in certain words, e. g. in *σάλος* 'groundswell, fluctuation' : OHG. *swellan* 'to swell'; *σίνομαι* 'I rob' : OHG. *swīnan* 'to disappear'; *σιγή* 'silence' : OHG. *swīgēn* 'to keep silent' (rt. *smā^xīk- smā^xīg-*). The *σ* would have its regular position only medially (in the inner part of the sentence), cp. *κονί-σσαλος*, *ὁ σάλος*, *ἐκ σάλου*, *ἐσάλειον*, *ἐσίνόμην*. Cp. Osthoff Morph. Unt. IV 359.

Rem. 4. We thus arrive at an explanation of *σῦ-ς* beside *ῥ-* 'pig'. Corresponding to *πάλος* 'fat hog' from **σF-ιολο-ς* (cp. Goth. *sv-ein* 'pig', O.Bulg. *su-inŭ* 'suillus') there existed once the form **σF-ος* beside *ῥ-ός* (cp. Goth. *sv-ein* as opposed to Lat. *su-inu-s*, like Ved. *dvā* beside *duvā* 'two'), the *σ* of which was retained in the inner part of the sentence and then was transferred to *ῥς ῥός*. Cp. Osthoff loc. cit.

§ 564. *s* became *h* in prim. Greek initially before sonants and between sonants, and then in the latter case disappeared altogether.

ὁ 'the' : Skr. *sá* Goth. *sa*. *ἵμάς* 'strap, rein' : Skr. *sī-mán-* 'parting, boundary', OS. *sī-mo* 'cord, rope', O.Bulg. *si-lo* 'cord

1) Bechtel (Philol. Anz. 1886 p. 15) puts **Fiδ-σFo-ς* down as the prim. form, which he connects with *εἶδομαί τινα* 'I resemble some one'. This would do very well as regards meaning, but the assumed suffix formation is not justifiable.

rope'. ὕς 'pig': Lat. *sū-s*, OHG. *sū* 'sow' (on *σῦ-ς* see § 563 rem. 4). ἀμό-θεν 'from some place or other': Goth. *sums* 'anyone', cpf. **smm-ó-*.

Hom. ἦα (Att. ἦ) 'I was': Skr. *ás-am*, Indg. **és-η*. γένε-ος γένους 'generis': Skr. *jánas-as* Lat. *generis*. 2. sg. mid. φέρε-αι φέρη (φέρω 'I bear'): Skr. *bhára-sē*. ᾔδε-α 'I knew': Skr. *ávedī-ś-am*.

Rem. 1. Sometimes *σ* seems to have remained unaffected between vowels, as in τῖθε-αι beside φέρε-αι, aor. Att. ἐπόθησα beside El. ἐποθηα. On this point see the accident.

Initial *h* passed into the spiritus lenis in prim. Greek, if an aspirated tenuis or *h* = *s* stood in the next syllable or the next but one. ἔχω 'I hold, have' fr. **éχω* (cp. ἔξω, ἔ-σχ-ο-ν): Skr. *sáñē* 'overpower', Indg. act. **séghō*; ἔ-σχω from **i-σχ-ω*. ἐδεθλο-ν 'seat' beside ἔδος 'seat': Skr. *sádas-* 'seat, a sitting'. ἄ-λοχο-ς 'consors tori' beside ἄ-παξ 'once', ἄ- = Skr. *sa-* 'with', Indg. **sm-*. αὔω 'I dry, wither' from **av̥ho*, older **av̥hō* (cp. fut. αὔσω): Lith. *saũs-a-s* 'dry', OHG. *sōrēn* 'to wither, dry up', rt. *saus-*. ἔχω: ἔξω and αὔω: αὔσω = τριχός: θριξ̃.

Rem. 2. αὔω beside αῦω and Att. (inscript.) ἔχω beside ἔχω were formed after αῦωω, ἔξω. Conversely αὔσω for αῦωω, πεύσομαι for **φεύσομαι* (§ 496). In like manner each of the two forms *á-* and *a'-* 'with' went beyond its original sphere, e. g. ἄ-θρόο-ς after ἄ-πας etc., conversely ἄ-πε-δο-ς after ἄ-λοχο-ς ἄ-δελοφó-ς etc. Cp. rem. 3.

Initial *sm-* became voiceless *f-*, and this became *h-*. *Foĩ* *Fé*, οἷ *é* 'sibi, se': Skr. *svá-*. Cp. § 563, 7 on *σάλος* etc.

Initial *sḡ-* became *h-*. ὑ-μῆν 'thin skin, sinew': Skr. *syá-man-* 'string, strap'. Medial *sḡ* became *ι*, which disappeared after Homer. Hom. τοῖο Att. τοῦ 'of the' from **to-σχο*: Skr. *tá-sya*. See § 131.

Prim. Gr. *h-* (= Indg. *s-*, *sm-*, *sḡ-* and *i-*, § 129) was lost in Lesbian according to the testimony of the old grammarians: *ὁ* = *ό* etc. (Meister Griech. Dial. I 100 ff.). *h-* seems to have been reduced in Ionic-Attic at an early period. It disappeared altogether in the christian era.

Rem. 3. Besides the forms quoted in rem. 2 there are still many others with *h-* where the spiritus asper might be expected. In some cases it

seems to be merely a question of inexactness in the representation of the sound. In other cases it is more or less clear that they have been formed by analogy. Thus Att. ἀλυνών 'kingfisher' beside ἀλυνών (Lat. *alcēdō*), after ἄλς from *αῖλς (de Saussure's comparison of ἀλυνών with OHG. *swa-lawa*, Mém. de la soc. de lingu. VI 75, does not convince me); Dor. ἀμέε; Att. ἡμεῖς (Skr. *asma-*) after ὑμέε; ὑμεῖς from *υσμε- (to Skr. *yuṣma-*, § 129); ἦσται 'sits' (Skr. *āstē*) after forms from ἔδ- 'sit' Indg. *sed-*; Heracl. ὀκτώ 'eight' (Lat. *octō*) after ἐπτά 'septem'. Further εἰπόμην for *εἰπόμην (from *ἔ-(h)επομην) after ἐπόμην ἐπομαι, and many others.

§ 565. Initial *s* before *n* became assimilated to this in prim. Greek, e. g. νίψ-α acc. 'snow': Lith. *snēga-s* etc., see § 555. The fuller initial was still preserved in ἀγά-ννιφο-ς 'deeply covered with snow' ἔ-ννη 'nebat' (O.Ir. *snā-the* 'filum', OHG. *snuor* 'thread, string') (§ 654, 4).

s, between a sonant and following nasal or between a nasal and following sonant, became assimilated to the nasal in prim. Greek. The stage of assimilation remained in Lesbian and North Thessalian, whilst in the other dialects a reduction of the nasal, partly with 'compensation lengthening' (cp. § 618), took place. *φαφισ-νο-ς 'shining', to φάος: Lesb. φάέννο-ς, Ion. φαεινό-ς, Dor. Φαηνό-ς. *ἔσ-μι 'I am' (Skr. *āsmi*): Lesb. ἔμμι, Att. εἶμι, Dor. ἦμι. ζῶμα 'girdle' from *ζωσ-μα: Lith. *jūs-mū* 'girdle', rt. *jōs-*. Aor. *ἔμεν-σα 'I remained' *ἐν-ε-σα 'I allotted': Lesb. ἔμεννα ἐνεμνα, Att. ἔμεινα ἐνειμα, Dor. ἔμηννα ἐννημα. Gen. *μηνσ-ος 'of the month' (O.Ir. *mīs*): Lesb. μῆνν-ος (Thess. ὑστειρο-μεινν-ιά), Att. Dor. μην-ός.

σ frequently came to stand before *μ* and *ν* again by form-association. Thus were formed ἔσμεν 'sumus' beside regular εἶμεν after ἔστῃ ἔστι, ἡμφί-εσμαι 'I am dressed' (rt. *ves-*) beside regular εἶμαι after ἡμφί-εσται etc. This *σμ* as well as that which arose from *tsm* (as in ἄσμενο-ς 'rejoicing' from *σφατ-σ-μενο-ς, to ἡδομαι, see § 566; ὀσμὴ 'smell' = **otsmā*, that is, **ōd+σμά*, beside ὀδ-μή) passed into *zm*; which is shown by the spelling ζμ and Cret. *κόμο-ς* = *κόμομ-ς*, the *ρ* of which in the first instance arose from *z* (cp. Θεορδότειο-ς, § 593). On the other hand the new *σν* became *νν*. Thus in Att. *ἔσνμι took the place of the regular (Ion.) εἶνμι 'I dress' after the forms ἔσ-θηται etc., and this became

ἐννῆμι probably at the same time when Πελοπόννησος arose from *Πελοπόζνησος. In like manner Att. ζώννυμι from *ζωσ-νῦ-μι, a new formation for regular *ζωνῦμι, cp. ζώνη 'belt' from *ζωσ-νᾱ, rt. jōs-, and others of the same kind.

sr became voiceless ρρ in prim. Greek, which underwent simplification initially. Hom. ἔ-ρρεε ῥέε 'flowed' : Skr. *á-srav-a-t sráv-a-t*. Cp. § 266. It is doubtful whether such ρρ was anywhere medially reduced to ρ with 'compensation lengthening'.

sl became λλ, initially λ, at the same period. ἄ-λληκτο-ς μετα-λλήξαντα (Il. I 157), λήγω 'I cease' : OHG. *slach* O.Icel *slakr* 'slack, lazy', rt. *slēg-*. Lesb. χέλλιοι, Ion. Att. χέλιοι (beside χίλιοι, the *ī* of which has not yet been satisfactorily explained), Dor. χήλιοι 'thousand', from *χεσλ-ιο- : Skr. *sa-hásra-* *sa-hasríya-*, Indg. **gheslo-* **ghesl-iō-*.

§ 566. Transposition of *σ* seldom took place, as in ξίφος Lesb. σκίφος 'sword', Syrac. ψέ Ion. σφέ 'se'.

Assimilation of *s* to following explosives or spirants, whereby the *st*, which had arisen from *tʰt* (§ 490), stood equal to original *st*. Lac. ἄ-ττασι· ἀνά-στηθι Hesych., ἀκκόρ = ἀκόος 'leather bag'. Cret. Gortyn μίττες 'up to' from *μσστες, which may be regarded as μεστέ-ς (cp. μέχοι-ς ἀνευ-ς etc.) or as μεστ' ἐς (cp. μέσσι, μίστα). Bœot. ἔττε = ἔσσι 'till', that is, ἐς τε, ἔττω = ἔστω 'let him know'. Cret. θθ from σθ, as διδόθθω = διδόσθω, πρόθθα = πρόσθα, Bœot. τθ, as ὀπιτθοτίλᾱ 'cuttle fish'. These θθ and τθ are probably both to be read *þþ*; *sþ* became *þþ*. Cret. ἰθθαῖντι (ἰθθαντι?) = Att. ἰστᾶσι shows the development *st þt þþ*.

Disappearance of *σ* in combinations of three consonants. πτέρνα 'heel, foot' : Skr. *pārṣṇi-* OHG. OS. *fersna* 'heel'. πτύω 'I spit' from *(σ)πιῦ-ιω (§ 131 p. 119), in case the dropping of the *σ* does not come under § 589, 3 (cp. O.Bulg. *plju-ja* 'I spit'). πτάρνυμι 'I sneeze' from *πσταρ-, rt. *pster-*, Lat. *sternuō*. 3. sg. of the *σ*-aorist πάλτο (act. ἔπηλα 'I swung'), λέκτο (act. ἔλεξα 'I read') from *παλ-σ-το, *λεκ-σ-το, formed like ἄσμενο-ς 'rejoicing' from *σφατ-σ-μενο-ς (§ 565); cp. the accidence. Cp. also ἑκαίδεκα, ἑκμηνο-ς etc., with ἕξ 'six'.

Italic.

§ 567. Some of the changes, which *s* underwent within Italic itself, belong to the development of the separate dialects, as is shown either by Latin or the Umbr.-Samn. dialects, e. g. Lat. *aēnu-s* from prim. Lat. **a(i)es-no-s*, cp. Umbr. *ahesnes* 'aēnis'.

In other cases the agreement of the Ital. languages, as evinced by their monuments, justifies our ascribing the change to the period of the Ital. prim. community, e. g. *z* from *s* between vowels may be regarded as prim. Italic.

There are other affections where we are unable to say how old they are, because the material is too limited, e. g. Lat. *-br-* from *-sr-*.

§ 568. *s* was retained in all dialects:

1. Initially before vowels (including *u*). Lat. *s-unt*, Umbr. *s-ent* Osc. *s-et* 'sunt': Skr. *s-ánti* Goth. *s-ind*, rt. *es-* 'be'. Lat. *sē*, *sovo-s suo-s*, Umbr. *seso* 'sibi' *svesu* 'suum' Osc. *sífei* 'sibi' *súvad* abl. 'sua': Skr. *svá-* 'own'. Lat. *suāvi-s*: Skr. *svādú-ṣ* Gr. ἡδύ-ς OHG. *swuazi* Indg. **suād-u-* 'sweet, lovely'. Lat. *soror* from **suesōr*: Skr. *svásā* etc., see § 560.

2. In combination with explosives and *s*. Lat. *spectō*, Umbr. *speture* 'spectori': Skr. *spáš-* 'spy, watchman', rt. *pek-*. Lat. *stō*, Umbr. *stahituto* 'stanto', Osc. *stahínt* 'stant': Gr. *στάσις* etc., see § 555. Lat. *est estōd*, Umbr. *est* Osc. 1st *estud*: Gr. *ἔστω* *ἔστω*, rt. *es-* 'be'. Lat. *pistu-m pistor*, Umbr. *pistu* 'pistum': Skr. *pištá-* 'rubbed, ground'. Lat. *scabō*: Goth. *skaba* 'I scrape', Lith. *skabėti* 'to cut', cp. § 346. Lat. *gnō-scō nō-scō*: Gr. *γινώσκω* 'I get to know'. Lat. *serpsī*: Skr. *á-sārps-am* and *á-srāps-am* (pres. *sārpāmi* 'I creep, crawl'), Gr. *εἶρψα* (*ἔρπω* 'I creep, go'). Preposition prim. Ital. **ops*: Lat. *obs-trūdō* read *opstrūdō*, *os-tendō*, Umbr. *os-tendu* 'ostendito'. Initial *ps-* seems to have become *s-*: Lat. *sabulu-m* according to Osthoff from **psaflo-m*: Gr. *ψάμμος* 'sand' from **ψαφ-μo-ς*, to *ψήφος* 'small stone' ¹⁾. Lat. *con-cussī* from **-cutsī*, to *con-cutiō*, see § 501.

¹⁾ It is not probable that *ps-* has become *p-* in *palpāre* and others (Stolz Lat. Gr. § 63, 2).

Lat. *dīxi* : Skr. mid. *ádikṣi* (*diśāmi* 'I direct, show'), Gr. *ἐδείξα* (*δείκνυμι*). Nom. Lat. *vōx* : Av. *vaxš*, Indg. **uōqs* 'voice, word'; Osc. meddiss 'meddix'. Initial *ks-* has perhaps been simplified to *s-* in Lat. *su-b s-uper*, Umbr. *s-omo* 'summum', to Gr. *ἐξ-ὑπερθε* (for other quite as uncertain or still more uncertain examples see Osthoff Morph. Unt. IV 266, Zur Gesch. d. Perf. 612). Lat. *ges-sī* beside *ges-tu-s*, *hausī* beside *haus-tu-s*. From prim. Ital. **is-so* **is-sā* or **es-so* **es-sā* '*iste, ista*'²) comes the Umbr. Osc. stem *is(s)o-* *es(s)o-*, as in Umbr. *isso-c eso-c* 'sic' *essu esu* abl. 'hoc' *esa* 'hac', Osc. *eseī* loc. 'in eo'.

3. In *-ns-*. Lat. *mēns-i-s*, Umbr. *menzne* 'mense' (*-nz-* from *-ns-*, see § 209) : Gr. Lesb. *μῆνν-ος* (§ 565). Lat. *cēns-eō*, Osc. *censamur* 'censetor' : Skr. *śas-āmi* 'I pronounce solemnly, recite'. Lat. *anser* : Skr. *hṣá-s* OHG. *gans* Lith. *žąst-s* 'goose'. Lat. *pīns-ō pīns-iō* : Skr. 3. pl. *piś-ānti* (§ 556).

So also original *s* after original *m*. Lat. *sūmpsī* with ex-crescent *p* (§ 228). Umbr. *uze onse* loc. 'in umero' : Goth. *ams* 'shoulder'.

Rem. It is however questionable whether orig. *-ms-* had not become *-ns-* in prim. Italic, just as *-mt-* became *-nt-* (§ 207), so that these examples would not come into consideration for the prim. Indg. combination *-ms-*. Lat. *sūmpsī* may have been a new formation like *sūmptu-s*. Lat. *umeru-s* can scarcely come from a prim. Ital. **omso-*. The pre-Italic form seems to be **omeso-* and the Umbr. word may have arisen from this by syncope (§ 633). The same relation would follow for Osc. *Niumsiefs* 'Numerii' beside Lat. *numerus*. Cp. §§ 209. 269 rem. and § 570 rem. 2 on *tenebrae*.

4. Often finally (cp. § 655, 9). Nom. sg. Lat. *hortu-s*, Umbr. *pihaz pīhos* 'piatus' Osc. *hūrz* 'hortus' : cp. Gr. *λύχο-s*, Gen. sg. Lat. *familiās*, Osc. *moltas* 'multae' : cp. Gr. *χώρας*.

§ 569. *s* between sonantal vowels became *r* in Latin at the beginning of the historical period; *s* is still found in the

2) Neut. nom. acc. **is-tođ* or **es-tođ*, masc. acc. **is-tom* or **es-tom*. The first part of the compound was related to the *s-* in Pruss. *s-tesse* etc. *t* was carried over to the nom. sg. masc. fem. in Lat., *iste, ista*, conversely in the other dialects *s* was carried over from these cases into the others. Cp. Danielsson Pauli's Altital. Stud. III 158 ff. and the adducence.

oldest period. In Umbr. *s* and *r*, in Osc. *s* and *z* (= French, Slav. *z*). *r* arose everywhere first of all from *z* (cp. Lat. *mergu-s* from pre-Ital. **mezgo-s*. § 594), and *s* in the old Ital. monuments is an inexact expression for *z*. The change to *z* was probably completed in the prim. Italic period.

Lat. *erō* O Lat. *esō* conj. (fut.) to *sum* : Skr. *āsāni*, Gr. *ἔω ᾤ*. Acc. *mūr-em* (nom. *mūs*) : Skr. *mūṣ-* OHG. *mūs* 'mouse'. *aur-ōr-a* : Skr. *uṣ-ās-* Gr. Lesb. *αὐ-ῶς* 'dawn'. Gen. *gener-is* : Skr. *jānas-as*, Gr. *γένε-ος γένους*. *vīder-a-m* : cp. Skr. *á-vēdiṣ-am* Gr. *ἴδε-α*. With *s*, inscript. *Lases* beside *Lares*, in grammarians besides *esō* also *āsa* : *āra*, *arbosem* : *arborem* etc. Cp. further *ūr-ō* : *us-tu-s*; *quer-or* : *ques-tu-s*; *quaer-ō* : *quaes-tor quaesō* (from **quaes-ō*); *honōr-is* : *honōs* *hones-tu-s*; *dir-imō* : *dis-tineō dis-siliō*.

Rem. 1. The process of rhotacism was at an end at the time of Appius Claudius (Censor 442 U. C.). From the report that he removed from the alphabet the letter *Z* we may conclude that *z* was also written in Lat., as in Osc., for the voiced sibilant.

Umbr. *r* and *s*. *eru erom* 'esse', rt. *es-*. *fu-r-ent* 'erunt', cp. *fu-s-t* 'erit'. *hapinaru* gen. pl. fem. 'ovium' : Skr. *tāsam* 'harum'. *asa asa* abl. 'ara'. The spelling of the latter word with *s* was a graphic archaism, or it was borrowed from another dialect without rhotacism. On the change between *s* and *r* finally see § 655, 9.

Osc. *z* and *s*. *ezum* 'esse', Umbr. *erom*. *censa-zet* 'censebunt' *tribarakattu-set* 'aedificaverint', cp. Umbr. *fu-rent*. *egmazum* 'rerum', cp. Umbr. *hapinaru*. *Fluusaí* dat. 'Florae'. *aasas* pl. 'arae'. To which Pelign. *coisatens* 'curaverunt', Lat. *coirāre coerāre cūrāre*, perhaps to Gr. *τετηγ-μένο-ς* 'sorrowful, troubled', *τι(σ)-* from **qis-* (§ 427, *b*).

In Lat. *r* = *s* also before *u*. *Minerva* from **Menes-uā*, cp. Skr. *mānas-* Gr. *μῆνεσ-* 'sense, mind'. *furvo-s* beside *fuscus*, in case the latter has not arisen from **fursco-s*. *lārva* (*lārua*) possibly connected with *Larēs* (*Lases*).

Rem. 2. In Lat. *r* = *s* often came through analogy into positions, especially finally in which it could not have arisen regularly. *honor* beside *honōs*, *arbor* beside *arbōs*, *mājor* for **mājōs*, after *honōr-is* etc. Cp. also

veternu-s *veterrimu-s*, to *vetus -eris* = Gr. ἔρος -εος, through association with *hibernu-s* *acerrimu-s* etc. with old *r*. *pūbertās* to *pūbēs -eris*, after *ūbertās* with old *r*.

Rem. 3. After the conclusion of the process of rhotacism *s* often came to stand again between vowels and now remained unaffected, e. g. *quaesō* from **quaes-sō*, *hausi* from **haus-si*. The assumption is unsatisfactory that *nāsu-s* (cp. *nār-ēs nārium*, *nās-turtiu-m*, Skr. *nas-* OHG. *nasa* 'nose', Ags. *næs-āyrla* 'nostrils', Lith. *nósi-s* 'nose') was formed anew from a nom. sg. **nās* (cp. *aurōr-a* etc.); the *s* in Slav. *nosŭ* is also strange (§ 588, 2); did *s* arise in both languages from a form with *-s-s-* (stem **nās(e)s-*, cp. Skr. *vats-ā-*)?

§ 570. *s* before nasals and liquids.

sn. *s* disappeared in Lat., but was retained in Umbrian. Lat. *nāre*, Umbr. *snata* 'umecta': Skr. *snā-mi* 'I bathe, wash, water', O.Ir. *snām* 'a swimming'. Lat. *ninguit nix*: Lith. *snėga-s* 'snow'; if Umbr. *ninctu* is really related to *ninguitō*, we have here a different treatment of initial *sn-* which may possibly depend on different conditions of sandhi. Lat. *nuru-s*: Skr. *snuṣā* OHG. *snura* 'daughter-in-law'. *aēnu-s* *aēneu-s*, Umbr. *ahesnes* 'aēnis', to *aes aeris*, Skr. *āyas-* neut. 'metal, iron'. Lat. *pēni-s* from **pes-ni-s*: Skr. *pās-as* neut. Gr. *πέος* neut. 'penis'. Lat. *dē-gūnō* beside *dē-gus-tō*, rt. *gēus-*. *dī-numerō* from **dis-n*. In *satin potin* from *satis-ne potis-ne*, *viden abin* from *vidēs-ne abīs-ne* the long vowel was shortened after the dropping of the *s* and the final *-e*.

xn, tsn. *lūna*, O.Lat. inscript. *losna*, from **loyc-snā*: Av. *raoṣṣna-* 'shining'. *sēnī* from **sex-nī*. *ēnūntiō* from **ex-n*. *penna*, O.Lat. *pesna*, from **pet-snā*, rt. *pet-* 'fly'.

sm. *s* disappeared in Lat., but was retained medially in Umbr.-Samn. Lat. *merda* 'dirt': Lith. *smirdėti* 'to stink'. *mī-ru-s* 'wonderful': Skr. **māy-a-tē* 'smiles'. *prīmu-s*, Pelign. *prismu* 'primo' or 'primum'. Lat. *dī-moveō* from **dis-m*. Umbr. *pusme* 'cui': Skr. *kā-smāi* 'to whom?'; do the Lat. adverbs *quom cum* and *quam* also belong here? Osc. *posmo-m* 'postremum', cp. Lat. *pōne* from **pos-ne*.

Rem. 1. It is uncertain whether *Casmēna* = *Camēna* and *dusmō* = *dūmō* (*dusmo in loco*) in Paul. Fest. are examples of the retention in Lat. tself of *s* in this combination *sm*. Corssen Krit. Beitr. 431 regards

cosmittere = *committere* in the same source as containing — but hardly rightly — a *cons-*, formed like *abs o(b)s-*, Osc. *a z* etc. Cp. also Bücheler Rhein. Mus. XXXVI 241 f.

xm. *sub-tēmen* from **-texmen*. *sē-mēnstri-s* from *sex-m*. *ēmergō* from **ex-m*.

sl. *s* was lost in Lat. *langueō* : OHG. *sluch* 'slack, lazy', rt. *slēg-* (§ 565). *lūbricu-s* : Goth. *slīupan* 'to slip'. *dī-luō* from **dis-l*. *pīlu-m* 'pestle' from **pins-lo-m*, *alu-m* from **anslo-m*, see § 208.

xl, tsl. *āla* from **axla*, to *axilla*, OHG. *ahsla* 'axle'. *vēlu-m* from **vexlo-m*, to *vexillu-m*. *ēligō* from **ex-l*. *scala* from **scant-slā*, to *scandō*.

According to some scholars (see Kuhn's Ztschr. XXVII 328. XXVIII 270) *s* disappeared in Lat. before nasals and before *l* without compensation lengthening (or with later shortening of the lengthened vowel), if the vowel was unaccented. The least doubtful examples are *Camēna* (rem. 1), *o-mittō* from **o(p)s-mittō*, *corpulentu-s* from **corpos-lēnto-s*, *colīna culīna* from **co(c)-sl-īnā*. It is here a question of later Lat. accentuation (§ 681), and on account of *o-mittō* it would have to be assumed that a short vowel had regularly arisen in *dī-númerō ē-mérgō* etc., quoted above, and that the long vowel was due to the analogy of forms with *dī- ē-*.

Initial *s* also disappeared in cases where it came to stand before *l* after the dropping of *t*, but not until a later period. *stlīs, slīs, līs*. *stlocus, locus*. Cp. also *lien* : Gr. *σπλήν* 'spleen'. See § 503. L. Havet, Mém. de la soc. de lingu. V 229 f., derives *īlicō* from **in slocō*, like *pīlu-m* from **pinslo-m* § 208, 2.

sr became *pr*, further *fr*, whence medially Lat. *br*. Examples only in Latin. *frīgus* : Gr. *ῥῑγος* 'frost', cpl. **srīgos*. *frāgu-m* : Gr. *ῥάξ -γός* 'berry'. *sobrīnu-s* from **suesr-īno-s*, to *soror* : Skr. *svasar- svasr-*, Indg. **syésor- *syesr-*. *cerebru-m* from **ceres-ro-m*, to Skr. *śīras-* 'head'. *fūnebri-s* from **fūnes-ri-s*, to *fūnus -eris*, *fūnes-tu-s*. *crābrō* from **crās-rō* : Lith. *szirsz-ũ* etc., see §§ 303. 306. *membu-m* from **mēms-ro-* : O.Ir. *mīr* 'a piece of flesh' (§ 574); **mēms-ro-* became in Ital. first of all **mensro-* (§§ 207.

612), hence **menfro*- **memfro*- *membro*-. *tenebrae*: Skr. *támisrā-tamisra-m* 'dark, dark night'.

Rem. 2. The *n* for *m* in the last word is best explained by assuming an orig. double from **temsrā*, whence **tensrā*- (cp. OHG. *dinstar* 'dark' from prim. Germ. **pims(t)ra*- and Lith. *timsra-s* 'like a sorrel-horse'), and **temāsrā*-. The *n* in the first form was transferred to the latter.

Rem. 3. *dī-ruō* was formed after *dī-luō dī-moveō* etc. or arose regularly through *-sr-* (*-zr-*) being treated differently at a later period than in the cases mentioned above. In the latter manner the difficult form *rēr rēris* (to Gr. *ῥαρ* Lith. *vasarà* etc.) might also be explained by assuming, along with L. Havet (*Mém. de la soc. de lingu.* V 447), that a stem-form **uesr-* **uebr-* = Indg. **ues-r-* was transformed to **uesr-* (**uezr-*) after the analogy of the nom. acc. **ueser* (**uezer*) and that from this arose *rēr-*, which, being carried over from the oblique cases, gave rise to the nom. acc. *ver*. Or does *ver* belong to O.Icel. *vār* 'spring'?

§ 571. *rs*, *ls*. In Lat. *s* became, if it was not protected by a following consonant (*tostu-s* from **tors-tu-s*), assimilated to the liquid, probably after it had first become *z*. *rs* was preserved in Umbr.

rs. Lat. *terreō*, Umbr. *tursitu* 'terreto': Skr. *trāsami* 'I tremble at', Gr. *τρέω* (aor. Hom. *τρέσσαι*) 'I tremble, flee' *ἐτρέσσειν* *ἐφόβησεν* Hesych., O.Ir. *tarr-ach* 'timid' (?); the root form *ters-* instead of *tres-* seems to be a secondary formation after the analogy of the form *tṛs-* (Umbr. *turs-*). Lat. *far farris*, *farreu-m*, Umbr. *farsio* 'farrea'; stem *far-s-* to Germ. **bar-iz-* 'barley' (O.Icel. *barr* neut., Goth. *bariz-eins*). Lat. *errō*: Goth. *airzeis* OHG. *irri* 'astray'. *verrēs*: Lith. *veřsi* *s* 'calf', Skr. *vṛṣa-s* 'bull', rt. *uers-*. Lat. *verrō* O.Lat. *vorrō*: O.Bulg. *vrīcha* 'I thresh', rt. *uers-*. Lat. *ferre* from **fer-se*, cp. *es-se*. *torreō* beside *tostu-s*: Gr. *τέρσομαι* 'I become dry'.

Rem. Observe that *rs* = *ri^s*, *ris*. *rks* remained in Lat. *vorsu-s*: Skr. *vṛtā-s*, Indg. **vṛt^sā-s*. *arsī* to *ardeō*. *ursu-s*: Skr. *ṛkṣa-s* (cp. however § 554). Cp. Umbr. *trah-vorfi* 'transverse' (§§ 209. 501).

ls. Lat. *collu-m* 'neck': *hals* (stem *halsu-*) 'neck'. *velle* from **vel-se*, cp. *es-se*.

Lat. *rn ln* from *rsn lsn*. *cernuo-s* from **cers-nuo-s*, to *cerebru-m* (§ 570). *alnu-s* from **als-no-s*, probably to Lith. *elks-ni-s* m. 'alder' (with excrescent *k*), further OHG. *elira* Ags. *alor* (*r* from *z*) O.Bulg. *jelīcha* 'alder'.

§ 572. -*ss* = Indg. -*ss*- remained after short syllables, but, like *ss* = *t't ts* (§ 501), became *s* after long syllables, e. g. *haesī* from **haes-sī* (*haereō*) beside *ges-sī* (*gerō*).

differō from **dis-ferō*.

Old Irish.

§ 573. Initial *s* was retained before sonantal vowels; as so, too, in Gallic, while in Britann. — first probably only after final vowels — it became *h*. *su-* *so-* 'bene', e. g. *su-thain* 'perpetuus' (*tan* 'time'), Gall. *Su-caru-s* (prop. name) Cymr. *hy-gar* Bret. *he-gar* 'comis, benignus, amicus': Skr. *su-* *sēt* 'way', Cymr. *hynt* Bret. *hent*: Goth. *sinþs* 'way, course, time'. *samail* 'resemblance', Cymr. *hafal* 'similar' (§ 243, 4): Skr. *samá-* 'even, equal', Gr. *óμω* 'together' *ἅμ-α* 'at once', Lat. *simili-s*, Goth. *sama* 'the same', O.Bulg. *sq-* 'with' *samŭ* 'self'.

sy appears initially as *s*, as *siur* 'sister': Cymr. *chuwaer*, Skr. *svásar-*, medially as *f* (*b*), as perf. 3. sg. *do-sefuinn* 'I hunted, drove', rt. *syend-*. See § 175 p. 154.

§ 574. *sn-* *sm-* *sr-* *sl-* were retained initially. *snāim* 'I swim': Skr. *snā-mi*. *snechta* 'snow': Goth. *snāivs*, rt. *sneigh-*. *smir* 'marrow': Goth. *smairþr* 'fat, fatness' OHG. *smero* (gen. *smerwes*) 'fat, grease'. *smech* 'chin': Lith. *smakrà* 'chin' (§ 557). *sruth* 'stream': Skr. *sráv-a-ti* 'flows' etc., see § 555. *ro slecht* 'destructus est', cp. perf. *ro se[s]lach* 'I struck down': Goth. *slaha* 'I strike' (§ 576 p. 431).

Medial -*sm-* became -*mm-*. 1. pl. *ammi* 'sumus', cp. Gr. *εἰμὲν* Skr. *smás*; 1. sg. *im am* 'sum': Skr. *ásmi* (cp. Zimmer Kelt. Stud. II, 133).

mīr 'a piece of flesh', according to Thurneysen from prim. Kelt. **mēnsr-*, to Lat. *membru-m*, Skr. *māśá-* etc., see §§ 570. 585 rem. 3.

s remained, except when originally final (§ 576), after nasals which themselves disappeared (§ 212). *gēis* (gen. du. Mid. Ir. *gēsi*) 'swan': Skr. *hṣá-s* OHG. *gans* 'goose'. Gen. sg. *mīs* (nom. *mī*) 'of a month': Lat. *mēns-is*.

s became assimilated to a preceding *r*. *err* (gen. *erre*) 'tail': OHG. *ars* 'rump', Gr. ὄρρο-*s* 'tail, rump'. Cp. also *orr* from **or(c)-s* § 518.

§ 575. *s* in combination with explosives and *s*.

It disappeared initially before *t*. *tiagaim* 'I stride, go': Skr. *stighnutē* 'leaps upon, climbs up' (not found), Gr. στείχω 'I stride, go', Goth. *steiga* 'I climb', Lith. *staigýti-s* 'to hasten'. -*tau* 'I am': Lat. *stō* etc., see § 555. Cp. on the other hand O.Bret. *strouis* 'stravi': Goth. *stráuja* 'I strew, spread out'; Bret. *sterenn* 'stella' Corn. *steyr* 'stellae'. Skr. *stṛ-* 'star' etc., see § 559.

Medial *st* and *ts* became *ss* (*s*). *ro closs* 'I was heard' fr. **k̑lus-to-*. *s*-fut. *ro fessur* 'I shall know' fr. **ȗit-s-*, rt. *ȗeid-*. See § 516.

sc. *scaraim* 'I separate, sever': Lith. *skiriū* 'I separate, sever'. *ro se-scaind* 'he leapt': Skr. *ca-skānda*. *cum-masc* 'a mixing, mixing oneself' *con-mescatar* 'miscetur': Lat. *misceō*, OHG. *miskēn* 'to mix'.

ks became *ss* (prim. Kelt. probably *χs*). *dess* 'on the right hand': Goth. *taihsva* Gr. δεξιό-*s*. *s*-fut. 1. pl. *for-tiasam* 'shall help', to *tiagaim*, cp. Gr. στείχω. See § 517.

ss. -*accastar*, that is, **ád-ces-s-a-thar* 3. sg. of the pass. *s*-conjunctive of *ad-ciu* 'I see'; cp. *ad-chess* 'visum est', the *ss* of which arose from *st*.

§ 576. *s* was dropped between sonantal vowels, the intermediate stage was *h*. This phenomenon occurs also in Britannic. *siur* 'sister', Cymr. *chwaer*, prim. f. **syēsōr*. O.Ir. *iarn*, O.Cymr. *hearn* (the *h* prefixed from the inner part of the word — **iharn* **eharn* — ?) 'iron', prim. Kelt. **isarno-* in the place name *Isarnodori* i. e. 'ferrei ostii': Goth. *eisarn* 'iron' a Keltic loan-word. *ro cloathar* 'audiat', to *ro closs*, Skr. *śruṣ-ṭi-ṣ* etc., see §§ 516. 576. *au ō* 'ear': Lat. *auri-s* Goth. *ausō* neut. Lith. *ausi-s* O.Bulg. *ucho* 'ear'. 2. sg. *beri* 'fers' fr. Indg. **bhèresi*, Skr. *bhāraṣi*.

s was treated in the same manner after vowels before liquids and nasals. Perf. *ro selaig* 'he struck down' i. e. *sešlaig*, see § 574. *senaich* 'stillavit' i. e. *sešnaich*, to *snigid* 'it drops'.

Every final *s* was dropped, both orig. postvocalic *s* and the *s* which arose from *-ks*, *-ts*, *-ns*. This dropping of *s* was late, since the Ogam inscriptions still have final *s*, as this also is still found in Gall. O.Ir. *Luigdech* = Ogam inscript. *Lugudeccas*, gen. sg. to nom. sg. *Lugaid* = **Lugudex* (c-stem); O.Ir. *tarb* 'bullock' = Gall. *tarvo-s*. *bō* 'cow': Skr. *gāú-ṣ* Gr. *βοῦ-ς* 'bullock'. *rī* (gen. *rīg*; 'king' Gall. *Dubno-rīx*: Lat. *rēx*. *se* 'six' = Lat. *sex*, beside *sessed* 'sextus'. *oen-tu* (dat. *oentid*) 'unitas' from **tūt-s*: cp. Lat. *servitūs* (gen. *-tūt-is*). *mī* (gen. *mīs*) 'mouth' from **mēns*: Gr. *μῆς* from **μῆνς* (§ 611). Acc. pl. *firu* 'viro' (nom. sg. *fer*): Goth. *vatra-ns*. This loss of final *s* was later than the change of initial explosives to spirants which was caused by a preceding vowel; for the latter change does not show itself in cases where *s* was final (§ 658, 1).

Germanic.

§ 577. *s* was generally still intact in prim. Germanic. The only changes, which it underwent in this period, are the change of it to *z* by Verner's law and the assimilation of *sm* to *mm*.

§ 578. Initial *s*.

s before sonantal vowels. Goth. *sunu-s* OHG. *sunu sun* OS. Ags. *sunu* O.Icel. *sunr* 'son': Skr. *sūnú-ṣ* Gr. *υῖό-ς* 'son', O.Ir. *su-th* 'birth, fruit', Lith. *sūnù-s* O.Bulg. *synŭ* 'son'. Goth. *saian* OHG. *sān* 'to sow': Gr. *ῥῖνα* 'a throw', Lat. *sēmen*, O.Ir. *sū* 'seed', Lith. *sėjū* O.Bulg. *sějā* 'I sow', rt. *sē*.

sī, *sy*. Goth. *siujan* OHG. *siuwan* 'to sew': Skr. *syū-tá-s* Lith. *siū-ta-s* 'sewn', Indg. **sīū*, cp. § 143. Goth. *spistar* OHG. *swester* 'sister': Skr. *svāsā*. OHG. *sweiz* 'perspiration, sweat': Skr. *svēda-s* 'sweat'.

sn, *sm*, *sl*, *sr*. Goth. *snáivs* OHG. *snēo* 'snow': Lith. *snėga-s* 'snow', cpf. **snoigho-s*. Goth. *snō-rjō* 'wicker-work, basket' OHG. *snuo-r* 'string, cord': O.Ir. *snā-the* 'filum'. Goth. *smatr-pr* 'fat' OHG. *smero* 'fat, grease': O.Ir. *smir* 'marrow'. MHG. *smiegen* 'to ply, bend' OHG. *smoccho* 'underdress, shirt': Lith. *smūkti* (indic. *smunkù*) 'to slide' O.Bulg. *smykati* *sę* 'to creep, slip'.

Goth. *slēpan* 'to sleep' OHG. *slaf* 'slack' *slafan* 'to sleep': O.Bulg. *slabŭ* 'slack'. OHG. *slingan* 'to wind to and fro' *slango* 'snake': Lith. *slenkù* 'I crawl' O.Bulg. *slakŭ* 'bent'. *sr-* became, as medially (§ 580), *str-*. OHG. *stroum* O.Icel. *straumr* 'stream': Skr. *srāv-a-ti* 'flows'.

sp, st, sk. Goth. *speiwan* OHG. *spīwan* 'to spit, vomit': Lith. *spiáu-ju* 'I spit'. OHG. *spuon* 'to succeed, have success': Skr. *sphāyāmi* 'I swell, thrive', O.Bulg. *spēja* 'I succeed'. Goth. *stiks* 'point of time' OHG. *stih* 'point': Gr. *στίζω* 'I prick', Lat. *in-stigare*. Goth. *us-skáus* 'provident, sober' OHG. *scouwōn* 'to look, view': Gr. *θυο-ακού-ς* 'sacrificing priest'. Goth. *skei-nan* OHG. *sci-nan* 'to shine': Gr. *σινιά* 'shadow'.

§ 579. *s* in combination with Indg. voiceless explosives medially and finally.

OHG. *aspa* 'aspen-tree': Lett. *apse* Pruss. *abse* O.Bulg. *osina* (from **opsīnā*, § 545); it is uncertain whether the original order was *sp* or *ps*. OHG. *wafsa* 'wasp': Lith. *vapsù* 'gad-fly'. OHG. *refsen* 'to chastise, blame, punish' prim. Germ. 1. sg. pres. **rafsjō*: Skr. *rāpas-* neut. 'bodily injury'.

Goth. OHG. *ist* 'is': Gr. *ἔσ-τι*. Goth. *bat-ists* OHG. *bezz-ist* 'best': cp. Gr. *μέγ-ιστο-ς*. Prim. Germ. *ss, s* from *ts*. OHG. *zan* 'tooth' from prim. Germ. **tans* Indg. **dont-s*. See § 527 p. 382.

Goth. *fisks* OHG. *fisc* 'fish': Lat. *pisci-s* O.Ir. *iasc* 'fish'. OHG. *forscōn* 'to ask': Lat. *poscō*. Goth. *auhsa* OHG. *ohso* 'ox': Skr. *ukṣā* 'ox'. Goth. *saihs* OHG. *sehs* 'six': Gr. *ἕξ* Lat. *sex*.

So also *s* in combination with Indg. *s* probably remained unchanged in prim. Germanic.

Rem. I do not know any sure examples. Goth. *is* 'thou art' may represent either **iss(i)* (Gr. Hom. *ἔσσι* Armen. *es*) or **is(i)* (Skr. *ási* Gr. *ἔι*). Does the genitive *-s* of *a*-stems (Goth. *vulfis* OHG. *wolfes* O.Icel. *ulfs* 'wolves', Norse run. *godugas* proper name) go back to *-ss-*?

§ 580. Medial *sr*, like initial *sr* (§ 578), probably became *str* before Verner's law came into operation (see § 581). Goth. stem-form *svistr-* O.Icel. *systr-* 'sister' (gen. *svistrs* etc.) = Skr. *svasr-* Lat. *sobr-* (§ 570) O.Bulg. *sestr-* (§ 585, 2), Indg. **syesr-*;

from here *t* was carried over into the forms, in which *s* and *r* were not in direct combination, hence e. g. nom. sg. Goth. *svistar* O.Icel. *syster systir* OHG. OS. *swestar*. OHG. *dinstar* Mid. Du. *deemster* 'dark': Skr. *tumisra-m* 'darkness', Lat. *tenebrae*, see § 570.

§ 581. In prim. Germ. *s* became *z* except in combination with voiceless explosives and spirants, if the sonant, directly preceding it, did not bear the principal accent of the word. This process of changing voiceless into voiced sounds concerned at the same time the spirants *f*, *þ*, *χ*, see § 530. *z* remained in Goth. but in the other dialects mostly became *r*.

Rem. Thus Indg. *s* partly fell together with Indg. *z*. See § 596.

First the *s* which remained unchanged. Goth. *kiusa* OHG. *chiusu* 'I test' prim. Germ. **kēysō*: Skr. *jōṣāmi* 'I taste, enjoy', Indg. **gēysō*. OHG. *mūs*, pl. *mūsi*, 'mouse': Skr. *mūṣ-* pl. *mūṣ-as*.

z. Compar. in *-iz-ō*, Goth. *jūhiza* O.Icel. *öre* OHG. *jungiro* 'younger', prim. Germ. **jū(ŋ)χ-iz-ō* (s. § 530 p. 387): cp. Skr. *-iṣ-* Gr. *-ισ-* in the superlative. Goth. 2. sg. indic. pres. pass. *baīraza* (*baīran* 'to bear'): cp. Skr. *bhārasē*. Goth. *riqiz-a-* (nom. acc. *riqis*) O.Icel. *rækkr* neut. 'darkness': Skr. *rājas*, Gr. *ῥεβρος*. Goth. *áiz-a-* OHG. *ēr* 'ore, metal' O.Icel. *eir* 'copper' prim. Germ. **aiz-a-* from **ai-iz-a-* (§ 635): Skr. *áyas-* Lat. *aes aeris*.

Gothic, by levelling out, mostly gave up again the grammatical change *s* : *z(r)* in the verb. To Skr. *jōṣāmi* 1. sg. pres., *jujōṣa* pf. indic. 3. sg. *jujuṣimá* 1. pl., *jujuṣāná-* partic. corresponded in prim. Germ. **kēysō*, **káysi*, **kuzumí*, **kuzaná-*. Hence regularly OHG. *chiusu*, *chōs*, *churum*, *choran*, O.Icel. *kys*, *kaus*, *kørom*, *kørenn*. On the other hand Goth. *kiusa* *káus*, *kusum*, *kusans* with *s* in stead of *z* in the two last forms, an innovation, which at a later period also made its appearance in the other dialects. Correspondingly Goth. *nasjan* 'to rescue' with *s* for *z* after *nisan* as opposed to OHG. Ags. *nerian*, prim. Germ. 1. sg. **noziŋō*.

The contrast, between Goth. *áusō* 'ear' MHG. *æse* 'ear' and OHG. *ōra* 'ear', and between OHG. *haso* and Ags. *hara* 'hare' etc., was also caused by an old difference of accentuation.

Goth. *z* regularly passed into *s*, if it came to stand finally,

cp. § 531. 2. sg. *batris* from **batriz(i)* = Skr. *bhārasi*, cp. O.Icel. *ber-r*. Nom. *riqis* from **riqiz(-a-n)* beside gen. *riqiz-is* (the spelling *riqiz* is inexact, just as Mod.HG. *raub* instead of *raup*, after *raubes* etc., Lat. *urbs* instead of *urps*, after *urbis* etc.). Adv. *áiris* 'earlier' beside nom. sg. *áiriz-a*.

§ 582. The change of *s*, mentioned in § 581, can also be traced in the combinations *rs*, *ls*, *sl*, *sn*, *ms*. The differences, which had regularly arisen in prim. Germ., were obliterated here also partly by levelling out and partly by processes of assimilation.

rs and *rz* (West Germ. *rr*). OHG. O.Icel *ars* 'buttock' prim. Germ. **ársa-z* = Gr. Att. ὄρσο-ς from **ὄρσο-ς*. Goth. *vairsiza* Ags. *wiersa wyrsa* from **wiers-(r)a* 'peior', prim. Germ. **úirs-iz-ō*. O.Icel. *hjarse hjarsi* m. 'giddiness' prim. Germ. **χérs-ē* from Indg. **kér-s-en-* (cp. also Lat. *cernuo-s* from **cers-n-*, § 571) beside **křs-én-* (see below), to a neuter **kéres-*, represented in Lat. *cerebru-m* (**ceres-ro-ς*, § 570). Goth. *ga-páirsa* 'I am withered, gape from dryness': Gr. τέρσομαι (the accent of which does not come into consideration here). OHG. *fersana* OS. *fersna* 'heel' prim. Germ. **férsnō*, Ags. *fyrns* 'heel' prim. Germ. **férsni-z*: Skr. *pārṣni-ṣ* 'heel' Gr. πτέρνα 'heel, foot'; the *z* in Goth. *fairzna* is strange. Goth. *airzjan* OS. *irrian* OHG. *irren* 'to mislead' prim. Germ. 1. sg. **irziǵō*, Goth. *airzeis* OHG. *irri* 'astray' prim. Germ. **irziǵá-*: Lat. *errāre* from **ers-āre*. Goth. *marzjan* 'to vex' OS. *merrian* OHG. *merren* 'to delay, hinder, disturb' originally 'to make one unmindful' seems to have been an old causat. verb, related to Skr. *mṛṣ-yāmi* (perf. *ma-márṣ-a*) 'I forget, neglect' *mṛṣā* adv. 'in vain, fruitlessly, erroneously'. OHG. *hirni* neut. 'brain' from **χirz-n-iǵá-* 'belonging to the head' (cp. O.Icel. *hjarse* above). OHG. *hornaz* 'hornet' prim. Germ. **χurz-n-áta-z* from a **křs-en- křs n-* = Lith. *szirsz-ũ -eñs* O.Bulg. *srīš-en-ī* 'hornet, gad-fly'; beside Mod.HG. *horsel* Dutch *horzel*: Lith. *szirszlỹ-s*; cp. also Lat. *crābrō* (§§ 303. 306. 570).

Rem. 1. Goth. 1. pl. *ga-daúrsum* 'we dare' for **-daúrzum* (= OHG. *gi-turrun*, Skr. *dadhṛṣimá*) after sg. *ga-dars* (Skr. *dadhárṣa*), like *kusum* for **kuzum* (§ 581). Goth. *paúrsu-s* 'parched, dry' for **paúrzu-s* after

ga-pairsan etc., cp. O.Icel. *þurr* O.Swed. *þörr* OHG. *durri* 'withered, dry', Skr. *ṛṣ-ú-ṣ* 'greedy, gaping with thirst'.

ls and *lz* (West Germ. *ll*). Goth. *hals*, gen. *halsis*, OHG. *hals* 'neck' prim. Germ. **halsa-* : Lat. *collu-m* from **colso-m*. Goth. *ga-talzjan* 'to teach, instruct', to *un-tala-* (nom. *untals*) 'disobedient'; *talz-* may represent a nominal *-es*-stem. OHG. *bellan* 'to bark' Ags. *bellan* 'to bark, scream, howl' Low German *bulle* 'bull' point to a prim. Germ. pres. **bēlsō* pret. pl. **bļzumī* : Lith. *bałsa-s* 'voice, sound', Skr. *bhāṣāmi* 'I bark' (cp. § 259), Indg. **bhēlsō*; the *ll* = *lz* in *bullun* 'barked' etc. had crushed out the regular *ls* of the pres. and sg. pret.

sl and *zl* (*ll*). I do not know an example for *sl*¹⁾. *zl* in MHG. *krol*, gen. *krolles*, 'curled, curled in locks' *krolle* 'curl, lock' Mid. English *crullen* 'to curl', prim. Germ. **kruz-lá-*, to MHG. *krūs* 'crisp, curled' Mid. English *crūs* 'crisp, angry'. Cp. also O.Icel. *hrolla* 'to tremble, quake' beside *hrjōsa* 'to shudder', to Gr. *κρῳόεις* 'awful, causing shudder' *κρῳο-ταίρω* 'I make to freeze'.

sn and *zn* (OHG. *rn*). Goth. *asneis* OHG. *esni* Ags. *esne* 'day-labourer' prim. Germ. **ás-nīja-*, as opposed to OHG. *arn* (gen. *arni*) 'harvest' O.Icel. *önn* 'season for working in the field' from prim. Germ. forms with unaccented root-syllable; cp. Goth. *asans* 'harvest, summer'. Goth. *razn* O.Icel. *rann* Ags. *ærn* (from **ærzn*, and this from **ræzn*) 'house' prim. Germ. **raz-ná-*, to OHG. *ras-ta* 'rest, repose, a certain distance' Goth. *ras-ta* 'a certain distance'. OHG. *lirnēn lernēn* Ags. *leornian* OS. *linōn* (cp. OS. *mēda* § 596) 'to learn', would have been in Goth. **liznan* pret. **liznōda*, to Goth. *lāis* 'I know' OHG. *lēren* 'to teach', rt. *lejs-*.

ms and *mz*. Goth. *ams* (st. *amsa-*) m. 'shoulder' : Skr. *āsa-* 'shoulder'. Goth. *mimza-* 'flesh' : Skr. *māśa-m* Pruss. *menśa menso* O.Bulg. *męso* 'flesh'.

Rem. 2. Did the *s* in *ns* once become *z*? For *nz* I do not know any other examples besides Goth. acc. pl. *hvanz-uh* 'all' *þanz-ei* 'which',

1) The nominal suffix *-sla-* must be left out of the question, since this probably represents an Indg. *-t+tlō-*. See Kluge's *Nominale Stammbildungslehre* p. 64.

but *nz* cannot have been prim. Germ. in this case (§ 583.) In numerous cases *ns* appears on all sides where *nz* or its further development might be expected, e. g. OHG. part. *dunsan* 'swollen' (*dinsan* Goth. *þinsan* 'to draw, pull': Skr. *tṣḍyāmi* 'I pull to and fro, shake', Lith. *tęsiù* 'I stretch by pulling', rt. *tens-*). I conjecture that *ns* had been developed to *nts* (as in Umbr., in Lith. dialects and elsewhere) at the time when Verner's law operated. *s* could not become voiced with this articulation.

Owing to Goth. *þamma* 'to the', beside Skr. *tásmād tásmāi* Pruss. *stesmu* etc. Umbr. *pus me* 'cui', and Goth. *im* O.Icel. *em* 'I am', beside Skr. *ásmi*, it may be assumed that *sm* became *mm* in prim. Germ., *im* first of all from **imm*. Otherwise, but not convincing to me, Osthoff Zur Gesch. d. Perf. 428.

§ 583. Final *s* (Indg. *-s* and *-z* — see § 645 finals 3 — may at that time partly or entirely have been levelled out to *-s*) was also subject to Verner's law. This law thus gave rise e. g. in the nom pl. of Germ. *a-* and *ō-*stems to *-ōz* beside *-ōs* (Skr. *-ās*), and in the gen. sg. of *i-*stems to *-aiz* beside *-áis* (Skr. *-ēṣ*). Such doublets were then treated differently in the separate dialects.

In Gothic, *-z* became *s* (**wulfōz* 'wolves' **ga-qumþáiz* gen. 'of a meeting, synagogue' **bairáiz* opt. 'feras' became *vulfōs ga-qumþáis bairáis*) either at the same time with the *z* which became final at a later period (e. g. **bairiz(i)* 'thou bearest', § 581 p. 534 f.) and thus fell together again with the *s* which had remained unchanged (*mundōs* nom. 'existimatae' = Skr. *matás*, Indg. **mptás*). Or else, before the dropping of the final short vowels (§ 660, 1), a generalisation of the *-z* first took place, as in Norse, so that e. g. **mundōz* was also spoken instead of regular **mundōs*, and then later *-z* everywhere became *-s*. I am in favour of the latter assumption. For thus can be best explained why *z* regularly appears for original final *s*, when a particle is attached to it (e. g. *is* 'he': *iz-ei*; *veis* 'we': *veiz-uh*; *hvas* 'who?': *hvaz-uh*; *vileis* 'velis': *vileiz-u*), whilst *s* appears in *vas-uh* beside *vas* 'he was', where *s* had only become final at a later period (**vasi*, prim. form **ve-uós-e*).

-z, as absolute final, was dropped in West Germanic, whilst *-s* was retained. *-z* had frequently been extended beyond its original sphere and had supplanted *-s*. Nom. pl. OHG. *geba* OS. *geba* Ags. *zifa* 'gifts' = Goth. *gibōs*. Nom. sg. OHG. OS.

Ags. *sunu* 'son' = Goth. *sunu-s*. In OHG. the *z*-form was generalised in the nom. pl. of *a*-stems, *taga*, in OS. and Ags. the *s*-form, OS. *dagos* Ags. *dagas*. Likewise the *-s* in the OS. gen. sg. *burges nahtes kustes* etc. is probably to be regarded as Indg. final *-s*. OHG. nom. *sū* 'sow' from **sūz* for older **sū-s*. Where *r* = *z* occurs in West Germ., as OHG. *ir er* (Goth. *is*), *wir* (Goth. *weis*), *zar-zer-zir-* (Goth. *tuz-*), this mode of treating the *z* was occasioned by the close connexion with following words and by the different stress which the pronouns and particles had in the sentence and in compounds. Cp. Paul in Paul-Braune's Beitr. VI 550 ff.

Prim. Germ. *-z* was generalised in Norse, whence *-r*, e. g. *syr* 'sow' (dat. acc. *sū*), *ulfar* 'wolves', *gjafar* 'gifts'.

Nothing prevents our assuming that *-z* became generalised in the nom. sg. in the prim. Germ. period.

Baltic-Slavonic.

§ 584. Indg. *s* remained generally intact in the period of the Balt.-Slav. primitive community.

The changes in this period were:

ks became *šš*, whence Lith. *sz*, O.Bulg. *s*. Lith. *aszi-s* O.Bulg. *osŭ* 'axle': Lat. *axi-s*, cpf. **ak̃si-*. See § 414. 544 p. 398.

Primitive Balt.-Slav. *šš* = Indg. *sk̃* is less certain, as Lith. *maiszyti* O.Bulg. *měsiti* 'to mingle, mix'. See § 414 rem.

§ 585. *s* remained unchanged in Balt. and Slav. in the following positions:

1. Initially before sonants and consonants (except *s̥*). Lith. *septyni* O.Bulg. *sedmŭ* 'seven': Skr. *saptá*. Lith. *sūnū-s* O.Bulg. *synŭ* 'son': Skr. *sūnū-š*. Pruss. *swai-s* 'his' O.Bulg. *svatŭ* 'relation' *svojŭ* 'own': Skr. *svá-*. Lith. *sesū* O.Bulg. *sestr-a* 'sister': Skr. *svásar-*. Lith. *snėga-s* O.Bulg. *sněgŭ* 'snow': Av. *snæǵaiti* 'it snows', rt. *sneigh-*. Lett. *smēi-ju* 'I laugh' *smāi-da* 'a smiling' O.Bulg. *smě-ja sę* 'I laugh': Skr. *smāy-a-tē* 'he smiles'. Lith. *smūkti* 'to slide' O.Bulg. *smykati sę* 'to creep, slip': MHG. *smiegen* 'to wind, bend'. Lith. *srav-à* 'a flowing, bleeding' O.Bulg. *stru-ja* 'a flowing' (with excrescent *t*, cp. 2.): Skr. *srāv-a-ti* 'flows'. Lith.

slenkù 'I creep' O.Bulg. *slakŭ* 'crooked': OHG. *slingan* 'to wind to and fro' *slango* 'snake'. Lith. *spėjù* 'I have time, leisure' O.Bulg. *spēja* 'I have success': Skr. *sphāyami* 'I swell, thrive'. Lith. *staigyti-s* 'to hasten' O.Bulg. *stignati* 'to come somewhere': Gr. *στειχω* 'I stride, go'. Lith. *skabėti* 'to cut' O.Bulg. *skobŭ* 'radula': Lat. *scabō*.

2. Medially in the combinations *su*, *sm*, *sn*, *sr*, *sl*, *st*.

su. Lith. *ès-va* O.Bulg. *jes-vě* 1. du. 'we two are': cp. Skr. *s-vās*.

sm. *es-mi* O.Bulg. *jes-mŭ* 'I am': Skr. *ás-mi*. Lith. *jŭs-mi* 'I gird' *jŭs-mŭ* 'girdle': cp. Gr. *ζῶμα* from *ζωσ-μα (§ 565), rt. *jōs-*. Lith. *ges-mė* 'a low glimmering fire', to *gèsti* (pret. *gesaũ*) 'to expire, go out'. O.Bulg. *kosmŭ* 'hair' beside *kosa* 'hair' (cp. § 588 rem. 4): OHG. *hār* 'hair' from prim. Germ. *χēzā-?

Rem. 1. The datives Lith. *támui tám* and O.Bulg. *tomŭ* 'to the' beside Pruss. *s-tesmu* Skr. *tásmāi* have not lost their *s* regularly, but are new formations after the analogy of other cases with *m*-suffixes without *s*. See the accidentence.

sn. Lith. *prus-nà* 'mouth' (*praus-iũ* 'I wash my face') O.Bulg. *prys-na* 'spargo': Skr. *pruṣ-ṇu-té* 'squirts, trickles, wets'. Lith. *pa-klus-nù-s* 'obedient' (cp. Pruss. *po-klus-ma-n* acc. 'obedient'), to *klausà* 'obedience': O.Bulg. *sluchŭ* 'a hearing, obedience', Indg. *kleus-*; on the initial Lith. *k* cp. § 467, 2. Lett. *saus-ni-s* 'a dried up tree', to Lith. *saũsa-s* 'dry', rt. *says-*. O.Bulg. *ves-na* 'spring' beside Lith. *vasarà* 'summer', Skr. *vas-antā-s* 'spring'. O.Bulg. *gasna* 'I expire' beside Lith. *gesaũ* 'I extinguish; to which Skr. *ghas-* 'consume'? O.Bulg. *po-jas-nŭ* 'girdle': cp. Gr. *ζώνη* 'girdle' from *ζωσ-νᾱ (§ 565), rt. *jōs-*.

Rem. 2. Slav. *-chn-* in *dŭchnati* etc. has arisen by analogy. See § 588 rem. 2.

sr became *str* (cp. *str* from *kr* § 545) in Slavonic universally, in Lithuanian only partially. O.Bulg. *sestr-a* 'sister' from **sesr-a*: Skr. *svasr-*. Lith. *tĩmsra-s* 'sorrel': Skr. *tamisra-m* 'darkness' etc., see §§ 570. 580. Lith. *nas-raĩ nastraĩ* pl. 'throat', to *nósi-s* 'nose'. Correspondingly *srovė* and *strovė* 'a flowing' (cp. 1.) etc. It is not clear in what parts of Lith. and to what extent the excrescent consonant made its appearance.

Rem. 3. O.Bulg. *nozdrī* pl. 'nostrils, nose' has been directly connected with Lith. *nasraĩ*, as if *zdr* had arisen from *sr*. It is probably better to divide the word into *noz-drī* and to regard the second part as a noun belonging to the root *der-*, cp. O.Bulg. *dīra dēra* 'slit', Skr. *dāra-* 'slit, hole'. Also *mezdra* 'fine skin on a fresh wound, the fleshy part on a thing', which has been connected with Lat. *membru-m membrāna* (-*br-* from -*sr-*, § 570) and O.Ir. *mīr* 'piece of flesh' (§ 570), and regarded as a further formation of *mēso* 'flesh' (Skr. *māsā-* Goth. *mimza-*) may be compounded of **mems+drā-* (from the same root *der-*: with **mems-* cp. the Skr. stem *mās-* instr. sg. *mās-ā* compound *mās-pācana-* 'serving for the cooking of the flesh') and have originally signified 'a skinning of the flesh'.

sl. Lith. *veislė* 'brood' *veislū-s* 'fertile', to *veisiū* 'I propagate'. Lett. *trušls traušls* 'fragile', to *trušu* 'I become bristly', Lith. *triūsai* pl. 'the long feathers in the tail of a cock'. O.Bulg. *tręslū* part. pret. to *tręsq* 'I shake'.

Rem. 4. Slav. -*chl-* in *u-süchlū* etc. has arisen by analogy. See § 588 rem. 2.

st. Lith. *ės-ti* O.Bulg. *jes-tī* 'is': Skr. *ís-ti*. Lith. *jū's-ta-s* 'girded': Av. *yās-ta-* Gr. *ζωσ-τό-ς* 'girded'. O.Bulg. 2. pl. of the *s*-aorist *dě-s-te*, to *dě-ti* 'to put, place': Skr. *dhā-s-ta*.

3. In the medial combinations *ms*, *ns*, *ls*, *ts*, *ss*.

ms. Pruss. *mensā menso* O.Bulg. *m̃so* 'flesh': Goth. *mimza-* Skr. *māsā-* 'flesh'. Lith. fut. *iñsiu*, to *imū* 'I take', O.Bulg. aor. *jēsū*, to *imq* 'I take': cp. Gr. *ἐνεμα* from **ē-νεμ-σα* (§ 565).

ns. Lith. fut. *pįsiu*, to *pinū* 'I plait, twist', O.Bulg. aor. *pęsū*, to *pīnq* 'I strain, hang'. Lith. *žqst-s* 'goose': OHG. *gans*. Lith. *tęsiū* 'I stretch' *tasū-s* 'extensible': Goth. *at-pinsan* 'to draw towards'. O.Bulg. *tręsq* 'I shake' from *tres-* (Gr. Hom. *τρέσ-σαι*) with 'nasalinflix' or from **trem-s-* (cp. Lat. *tremō*)? Old Czech loc. pl. *Polás* (proper name, see Miklosich Vergl. Gramm. III 16), to nom. pl. O.Bulg. *poljan-e* 'field inhabitants', according to Leskien for prim. Slav. **polja-sū* (**poljan-sū*) after the analogy of *polja-mi -mū* (with regular loss of the *n* before *m*, § 219); in other cases, after vowels, Slav. -*chū* = Skr. -*su*, § 588, 2.

Rem. 5. Forms like *pęchū*, beside *pęsū*, were new formations. See § 588 rem. 2.

ls. Lith. *baĩsa-s* 'voice, tone': OHG. *bellan* 'to bark', Skr. *bhāṣami*, see § 582 p. 436. Lith. *skelsiù* 'I drive away, reach out'; *delsiù* 'I tarry, delay'. Lith. fut. *kėlsiu*, to *kelù* 'I raise'. O.Bulg. *glasù* 'tone, note, voice' from prim. Slav. **golsù*, to O.Icel. *kalla* (*ll* from *lz*? § 582) 'to name, call'.

ts became *s* through the intermediate stage *ss* in both language divisions. Lith. *ėsiu* 'I shall eat', O.Bulg. *jasi* 'thou eatest' aor. *jasù*: cp. Skr. fut. *atsyāmi* 2. sg. pres. *ātsi*, rt. *ed-*. See § 544.

Rem. 6. Forms like *jachù*, beside *jasù*, were new formations. See § 588 rem. 2.

ss became *s* in both language divisions. Lith. fut. *lėsiu*, to *lesù* 'I pick up', Goth. *lisa* 'I gather together'. Lith. fut. *jūsiu*, to *jūs-mi* 'I gird', cp. Gr. aor. *ἔζωσα* from **ē-ζωσ-σα*, rt. *jōs-*. O.Bulg. *s*-aorist *otū-trēsù*, to *otū-trēsā* 'I shake off'. O.Bulg. *jesi* 'thou art': cp. Gr. Hom. *ἔσσι*. *nasù* (gen. loc. pl. to *my* 'we') from **nās-sù*, cp. the possessive pronoun *našī* from **nās-ī* (§ 588. 2. 3).

§ 586. Besides the cases mentioned in § 585 Indg. *s* also regularly remained in Lithuanian in the following cases:

1. After vowels and diphthongs before sonantal vowels. Lith. *lesù* 'I pick up': Goth. *lisa*. *saūsa-s* 'dry': Skr. *śōṣa-s* 'drying up, parching' (§ 557, 4), rt. *say-s-*. Part. perf. act. fem. *āug-us-i*, to *āugu* 'I grow': cp. Skr. *vid-ūṣ-i* (indic. *vēda* 'I know').

Rem. 1. *sz* frequently appears where we should expect *s*. Concerning *maiszýti* etc. see § 414 remark. *máisza-s* 'large sack, hay net', which has been regarded as a genuine Lith. word and brought together with Pruss. *moasis* 'bellows' O.Bulg. *měchù* 'hide, leather bag', might have been borrowed from German (OHG. *meisa* 'a frame for carrying on the back', O.Icel. *meiss* 'food basket'), with the same substitution of *sz* for Germ. *s* as in *āsila-s* beside *āsila-s* 'ass' from Germ. (Goth.) *asilu-s*. Cp. further § 587 rem. 2.

2. In *si*. *siūvù* 'I sew' *siūla-s* 'thread': Skr. *syū-tā-s* 'sewn'. Fut. *dūsiu* 'I shall give': Skr. *dā-syāmi*, Indg. **dō-siō*.

3. in *qs*. Fut. *lksiu* 'I shall leave': cp. Skr. *rēkṣyāmi*.

Rem. 2. Such futures with *ks* are not quite reliable examples, since *s* may have been introduced by analogy just as in *gėrsiu* (§ 587 rem. 1). **liksziu* can hardly be regarded as the regular form, even if

áukšta-s 'high' is related to Gr. *αὔξω* Lat. *auxiliu-m* O.Ir. *ós was* Cymr. *uch* (§ 434).

4. Finally. Nom. sg. *vilka-s* 'wolf' : Skr. *vṛka-s*. Nom. pl. *dūktar-s* 'daughters' : Gr. *θυγατέρες*.

§ 587. Changes of *s* in Lithuanian.

1. *rs* became *rz*. *mařsa-s* 'a forgetting' *mirsaũ* 'I forgot' : Skr. *marša-s* 'a patient enduring' *mṛṣyāmi* 'I forget. bear patiently'. *veřsi-s* m. 'calf' : Lat. *verrēs* from **versēs* (§ 571), Skr. *vṛša-s* 'bullock'. *virszũ-s* 'top, point' : Skr. *vārṣṭyas-* 'higher', perhaps also Lat. *verrūca* 'lump, wart'.

Rem. 1. Fut. *gėrsiu* had been formed after the analogy of *kėlsiu* *dũsiu* etc. Leskien (Der Ablaut der Wurzelsilben im Lit. 65) explains *gařsa-s* 'noise' as coming from **gard+sa-s*, to *girdėti* 'to hear'. *varsė* 'flake' is a borrowed word, see Brückner Litu-Slav. Stud. I 151.

2. *sz* for *s* through assimilation to the *sz* of a neighbouring syllable. *szeszura-s* 'father-in-law' from **seszura-s* : Gr. *ἐνυρό-ς*, Indg. **syékura-s*. *szq-szlavýna-s* beside *sq-szl*. 'heap of sweepings' : O.Bulg. *sq-* Skr. *sam-* 'with'. Assimilation in the opposite direction probably in *szāsa-s* 'scurf' : O.Bulg. *socha* 'piece of wood' *o-sošiti* 'abscindere', Skr. *śāsami* 'I cut, slaughter'. Cp. the analogous assimilation in Skr. § 557, 4.

3. *scz(i)* from *stī* became *szcz(i)* in East Lithuanian dialects. Opt. *klāuszcziāu* (*klāuszcze*) from *klāuszcziāu*, to indic. *klāusiu* 'I ask'. Cp. *pěszczia-s* from *pěsczia-s* i. e. **péd+tīa-s*, § 544 p. 397 f. *sz* is pronounced softened (*sź*), the course of development was *stsź* — *št'sź* — *sź'tsz*.

4. *klāuzdama-s* beside *klāusdamas* (part. of *klāusiu* 'I ask'), just as *mėzdama-s* beside *mėsdama-s*. See § 544 p. 398.

Rem. 2. Has *sk* become *szk* in pure Lith. words? *jėszkōti* 'to seek' (O.Bulg. *iskati* 'to seek' OHG. *eiscōn* 'to seek') and the suffix *-iszka-s* e. g. *tėv-iszka-s* 'fatherly' (O.Bulg. *žen-iskū* 'womanish', Goth. *barn-isks* 'childish') have the suspicion of being borrowed from Germanic. Cp. § 414 rem.

§ 588. Prim. Balt. Slav. *s* did not remain unchanged in Slavonic in any of the positions, in which it was preserved in Lith. (§ 586), nor in those in which it underwent a change in Lith. (§ 587), the case in § 587, 2 excepted.

1. *ch* (*χ*) from *s* after *k* (Indg. *q*) and *r*.

ks became *chch*, further *ch*. Aor. *těchŭ* 'I ran' prim. f. **tęq-s-o-m*, to pres. *tekq*. See § 462.

rch. *vrachŭ* 'a threshing' from **uorchŭ*, *vrĭchq* 'I thresh' from **uĭrchq*: Lat. *verrō vorrō*, rt. *uers-*. *vrĭchŭ* 'top': Lith. *virszŭ-s* Skr. *vārṣīyas-*, see § 587, 1. *s*-aorist *trĭchŭ*, to *tĭrq* 'I rub'.

This *ch* became *š* and *s* under the same conditions as those by which *k* passed into *č* and *c*, see §§ 461. 462. *vrĭšetĭ* 3. sg. to *vrĭchq*. *srĭš-en-ĭ* 'hornet, horse-fly' from **sĭrch-en-*: Lith. *szirsz-ŭ*, prim. f. **krs-en-* (§ 582). *vrĭsi* nom. pl. to *vrĭchŭ* 'top' (stem *vrĭcho-*). *vrĭšēte* 2. pl. opt. to *vrĭchq*.

Rem. 1. The inf. *vrĭšti* 'to thresh' must be explained from **uerchtĭ*, more precisely **uerχ'tĭ*, see § 462 rem. Cp. with it however *trĭste* from **tĭrste* 2. pl. to *trĭchŭ*. Which of the two forms represents the regular treatment of *rst*?

2. Further *ch* (*š*, *s*) for Indg. *s* between vowels; numerous sure examples for *ch* especially after *u-* and *i-*vowels. *snŭcha* 'daughter-in-law' *snŭšinŭ* 'like a daughter-in-law': Skr. *snuṣṭ*, Indg. **snusṭ-*. *mŭchŭ* 'moss': Lith. pl. *musai* 'mould', OHG. *mos* 'moss'. *myšĭ* 'mouse': Lat. *mŭs* OHG. *mŭs*. *jucha* 'soup': Pruss. *juse* 'broth', Skr. *yāṣa-* 'sauce', Lat. *jŭs*. *duchŭ* (voc. sg. *duše* nom. pl. *dusi*) 'breath', *duša* 'soul' from **dachĭa*: Lith. *daŭsos* pl. 'upper air'. Part. pret. fem. nom. sg. *pek-ŭši* (*pekq* 'I cook') from **ŭchĭ*, acc. sg. *-ŭšq* from **ŭchĭq*: Skr. *-uṣ-ĭ-uṣ-ya-*. *pĭchati* 'to push, stamp, strike', indic. pres. *pĭšq* from **pĭchĭq*: Lith. *pės-tà* 'stamping vessel' *paisŭti* 'to strike the awns off barley': Lat. *pĭns-ō*. *lēcha* 'beet root' prim. f. **loĭs-ā*: Lith. *lŭsé* 'beet', Lat. *lĭra*, MHG. *leis leise* 'trace, track'. *socha* 'piece of wood' *o-sošiti* 'abscindere': Skr. *śásami* 'I cut, slaughter'. Aorist ending 1. sg. *-chŭ* 3. pl. *-šę* (cp. Skr. *-ṣam-*): *da-chŭ* to *da-ti* 'to give', *dě-chŭ* to *dě-ti* 'to place', *by-chŭ* to *by-ti* 'to be', *plu-chŭ* to *plu-ti* 'to sail', *vi-chŭ* to *viti* 'to wind'. Suffix of the loc. pl. *-chŭ* = Skr. *-su*: *žena-chŭ* to *žena* 'woman', *vlŭcě-chŭ* to *vlŭkŭ* 'wolf', *paŭĭ-chŭ* to *paŭĭ* 'way'. Gen. pl. *těchŭ* to *tŭ* 'the': Skr. *tě-šam* O.Icel. *pei-ra* (Goth. *þi-zē blindái-zē*). Ending of the 2. sg. *-ši* from **-chĭ* (not = mid. Skr. *-sē* Gr. *-(σ)αι*; for prim. Slav. **-choj*

would have become **-si*): *bere-ši* to *bera*; cp. beside this *jasi* 'thou eatest' from **ētsī*, *jesi* 'thou art' from **esst* § 585, 3.

Rem. 2. Through new formation *ch* frequently came into positions where it could not have arisen regularly. *chn*: *dūchnqti* 'to breathe', *sūchnqti* 'to become dry'. *chl*: *u-sūchlū* 'dry' *sūchlī* f. 'dry wood'. *ch* after nasal vowels: aor. *pechū* beside *pesū*; *achati* 'to smell' instead of **asātī* (**an-s-*, to *v-on-ja* 'smell' op. Lat. *ālu-m* (*h*)*ālāre* from **anslo-* §§ 208. 570) through association with *ja-chati* 'vehi' (Skr. *yā-mi* 'I drive' Lith. *jō-ju* 'I ride') *ma-chati* 'agitare, ventilare' (beside *ma-jā* 'vibro'). *ch* for *s* = *ts*: aor. *jachū* beside *jasū* 'I ate' (§ 543). Cp. § 585 with rem. 2. 4. 5. 6.

Rem. 3. *ch* appears often initially before vowels and *r*, *l*, *v*. Most of the words are unfortunately not etymologically clear. Some are undoubtedly borrowed words and the *ch* in them has nothing to do with *s*, as *chladū* 'coolness, dew' from Germ. (Goth.) *kalds* 'cold'.

chodū 'incessus, iter' has been regarded as a pure Slav. word and connected with Gr. *ᾠδός*; Skr. *ā-sad-* 'reach, attain', so, also, *chromū* 'lame' to Skr. *srāmd-s* 'lame'. I know nothing which helps to explain their *ch*.

s often appears where, from what has been said above, we should expect *ch* (or *š*). Examples: *nosū* 'nose': OHG. *nasa*. *bosū* 'bare footed': Lith. *bāsas* OHG. *bar*. *po-jasū* 'girdle'. *gasiti* 'to extinguish': Lith. *gesyti*. *bēsū* 'demon': Lith. *baisà* 'fright'. *rosa* 'dew': Lith. *rasà* 'dew', Skr. *rasā* 'that which is wet, fluid', Lat. *rōs rōris*. *kosa* 'hair': OHG. *hār*? Gen. *sloves-e* (nom. *slovo* 'word'): Skr. *śrāvas-as* Gr. *κλέ(φ)ε-ος*. I cannot find any special reason (vicinity of sounds etc.) which should have prevented *s* from passing into *ch* in these examples. I conjecture that none of these words had an *s* at the time *s* became *ch*.

Rem. 4. For some cases a plausible explanation lies close at hand. *po-jasū* after *po-jasnī*, *gasiti* after *gasnqti*, *kosa* after *kosmū* or similar forms, in which *s* regularly remained. *sloves-e* *sloves-i* etc. may be explained, if we take into account that for *sloves-īmī -īmi -īmū -īma* there once existed **sloves-mī -mī* etc. and for *sloves-ichū* **sloves(s)ū* (op. *polja-mi* from **poljān-mi* etc. § 585, 3); **sloves* could also have formed a factor, if *-s* had not already been dropped at that time (7). On *nosū* cp. § 589 rem. 3. The whole question requires a thorough investigation.

3. Prim. Slav. *š* = Indg. *s*₁ had, as we saw under 2., passed through the stage *ch*₁, in *duša pšā* etc. On the other hand *š* is to be traced directly back to *s*₁ in *šiti* 'to sew' from **s₁iti* **s₁y-ti* = Lith. *siū-ti* and in such cases as *gašā* 'I ex-

tinguish' beside 2. sg. *gasiši* etc. (2.). This latter, younger change took place at the same time with the transition of *s_i* = Indg. *k_i* into *š*, as in *nošq* 'I carry' from root *nek-*, *pišq* 'I write' from root *peik-* (§ 147). *gašq* : *gasiši* = *nošq* : *nosiši*.

4. *sti*, *stri*, *ski*, *slj*, *snj* became O.Bulg. *št*, *štrj*, *št*, *šlj*, *šnj*. *goštq* 'I take as guest' from **gostjā*, inf. *gostiti*, to *gostī* 'guest': Lat. *hosti-s*, Goth. *gasts*. *tūštī* 'empty' from **tūškj*: Skr. *tuchyd-* 'empty'. See § 147.

5. If *s* came to stand before mediae, it passed into *z*. *zborŭ* fr. *s(ŭ)-borŭ* 'a bringing together, a uniting'. *zdělati* fr. *s(ŭ)-dělati* 'to carry out, complete'. *zdravŭ* fr. *s(ŭ)-dravŭ* 'healthy'. Here eventually also *nozdrī*, see § 585 rem. 3.

6. *rsn* became *rn* in prim. Slav. *črŭnŭ* 'black' fr. **črsno-*, Pruss. *kirsna-* Skr. *kṛṣṇá-* 'black', Indg. **qrsno-*. Cp. § 302 rem. 1.

7. Final *s* was dropped. *nebo* 'sky': Skr. *nábhas*, Gr. *νέφος*. Other examples in § 665,4.

Primitive Indg. changes of *s*.

§ 589. The following modifications of *s* may be regarded as prim. Indg.

1. *s* became *z* before voiced explosives and spirants, e. g. **z-dhī* 'be' imper. from rt. *es-*, **menez-bhi(s)* instr. from *ménēs-* 'sense'. See § 590. Cp. Indg. *-bd-* from *-pd-* etc. § 469, 2.

2. *ssk* became *šk*. **iskō* i. e. **is+škō* pres. from rt. *ais-* 'seek': Skr. *ichāmi* 'I seek, wish', cp. OHG. *eiscōn* 'to seek'.

Rem. 1. There is little foundation for the assumption that intervocalic *ss* has also become *s* in secondary accented syllables, as **esi* 'thou art' (Skr. *ási* Gr. *ai*) from **es-si* (Osthoff Z. Gesch. d. Perf. 18), and that *ss* has become *ts* under certain conditions (J. Schmidt Kuhn's Ztschr. XXVI 343 ff. XXVII 330 ff.).

3. Initial *s* was dropped under certain conditions before consonants, possibly e. g. after *s* at the end of words, so that this reduction would be identical with the one mentioned under 2. (Cp. Skr. *duṣṭuti-ś* 'bad song of praise' = *duṣ+ṣṭuti-ś*, Gr. *δύστηρος* = *δύς+στηρος*, Gortyn inscript. *ταιστεγας* = *ταῖς*

στέγαις). Hence it often happens that several languages concurrently show loss of *s*- without a sufficient reason for its loss being discoverable by the sound-laws of the separate languages. Thus e. g. *steg*- and *teg*- 'cover': Skr. *sthāgāmi* 'I conceal, hide', Gr. στέγος 'roof', Lith. *stōga-s* 'roof' O.Bulg. *o-stegŭ* 'toga' + Gr. τέγος 'roof', Lat. *tegō*, O.Icel. *þak* OHG. *dah* 'roof'. Goth. *stautan* OHG. *stōzan* 'to push' + Skr. *tudāmi* 'I push', Lat. *tundō*. Skr. *spāś-* 'spy, watchman', Lat. *-spiciō*, OHG. *spēhōn* 'to spy' O.Icel. *spakr* 'sensible' + Skr. *pāśyāmi* 'I see', O.Bulg. *paziti se* 'cavere', rt. *spek-* *speg-* (§ 469, 7). Gr. θυσίοος 'sacrificing priest', Goth. *us-skāu-s* 'provident, prudent' + Skr. *a-kuvātē* 'he intends' *kavi-* 'seer, prophet', Gr. *κοίω* 'I observe', Lat. *caveō*. Skr. *smārami* 'I intend, bear in mind' + Lat. *me-mor*, O.Ir. *maraim* 'maneo' (cp. Lat. *mora*). Perhaps here belong also Armen. *veç* 'six', Pruss. *wuschts uschts* 'sextus' (to which also Lith. *ūszės* beside *szėsziōs* pl. 'childbed') as opposed to Gr. *ἕξ* from **σφεξ* Lat. *sex* etc. Cp. further Gr. *σκάζω* 'I limp' + OHG. *hinchan* 'to limp'; Gr. *ἔννη* 'nebat', O.Ir. *snīm* 'a spinning' (*ī* = Indg. *ē*) *snāthe* 'filum' (*a* = Indg. *ō*) OHG. *snuor* 'cord, string' + Goth. *nēpla* OHG. *nādelā* 'needle'.

It is certain that *s*- often first disappeared in the separate developments of the Indg. languages, as in Skr. *utthātum* inf. 'to rise' from **ut-sthātum* (§ 557), Lat. *nāre* from **snāre* (§ 570), O.Ir. *-tau* 'am' from **stā-īō* (§ 575), and it is not possible everywhere to separate this loss from that in the parent Indg.

4. It is probable that the combinations *bh*, *dh*, *gh*, *gh* + *s*, which are etymologically to be presupposed for words like Skr. *dīpsati*, had experienced a change of articulation in the prim. Indg. period. But it is not yet determined what this change was. *bzh*, *dzh* etc. are to be assumed for prim. Aryan. See §§ 469, 6. 470. 482. 552.

Rem. 2. That *s* was dropped between explosives already in prim. Indg., is an uncertain conjecture. This theory is based on OHG. *sehto* O.Icel. *sette setti* Gr. *ἑκτο-* 'sextus'. I grant an Indg. **syekto-s*. But it is however quite possible that this form had never had the final *-s* of **syeks*. For the present it seems to me wisest to regard the loss of *s* between explosives as a process carried out in the separate languages.

Indg. *z*.

§ 590. Primitive Indg. period. So far as can be seen *z* occurred only in combination with following mediae or mediae aspiratae.

Before mediae. **ni-zd-o-* 'place of rest' (*ni-* 'down', rt. *sed-* 'sit'): Skr. *nīḍá-s* 'place of rest, nest', Armen. *nist* 'seat, possession' Lat. *nīdu-s*, O.Ir. *net* 'nest', OHG. *nest* 'nest'. **ozdo-s* 'branch, twig': Armen. *ost*, Gr. ὄζο-ς, Goth. *asts*. Rt. *mezg-* 'tie knots': OHG. *masca* 'mesh, loop', O.Icel. *mǫskve mǫskvi* 'loop', Lith. *mezgù* 'I tie in knots, knit' *māzga-s* 'knot'.

Before mediae aspiratae. **z-dhí* 'be' imper. from rt. *es-* 'be': Av. Gāp. *zdī*, Gr. ἔσθι. Instr. in *-z-bhi(s)* from *s*-stems: Skr. *uśádbhīś* from *uśás-* 'dawn of day', Gr. ἐρεβ+σφ+ from ἐρεβεσ- 'darkness'.

Root forms *mezg-* and *mezgh-* 'duck, sink down' (cp. *stemb-* and *stembh-* etc. § 469, 8): Skr. *mājāmi* 'I duck under' *madgú-ś* a water fowl *mājān-* 'marrow' (*g*) Av. *mazga-* 'marrow' (*g* or *gh*), Lat. *mergō merg-us* (*g*), Gallo-Lat. *mesga* 'whey' (*g* or *gh*, cp. § 521), OHG. OS. *marg* 'marrow' (*gh*), Lith. *mazgóti* 'to wash' O.Bulg. *mozgū* 'marrow' (*g* or *gh*).

z probably occurred finally before voiced explosives, but we are no longer able to follow it in detail (§ 645, 3).

§ 591. Aryan. Indg. *zd(h)* fell together with Indg. *d'd(h)* in prim. Aryan, see § 476. At the same time Indg. *z* became *ž* under the same conditions as *s* became *š*, and then *ž* became *š* in Skr., as *ś* became *š*, see § 556, 1. In consequence of this change to *ž*, Indg. *zd(h)*, *zbh* fell together with *gdh*, *gbh*, see §§ 404. 482.

Prim. Ar. *azd(h)* *azd(h)* = Skr. *ēd(h)* *ād(h)*, Iran. *azd azd*. Reduplic. stem Skr. *sēd-* Av. *hazd-* from rt. *sed-* 'sit', 3. sg. opt. perf. *sēd-yā-t*, *hazd-ya-p*, Skr. *sēd-i-ś* 'a weakening': Lat. *sēd-imus sēd-ēs sēd-are*, Indg. **se-zd-*. Skr. *nēd-īyas-* Av. *nazd-yah-* 'nearer' from prim. Ar. **na-zd-* from the same root *sed-*, properly ἔφιζον, προσήμενο-ς. Skr. *ēdhí* 'be' imper. from prim. Ar. **az-dhi* beside Av. Gāp. *z-dī*, cp. § 313 p. 252. Skr.

médas- 'fat' : OHG. *mast* 'feeding' (v. Bradke Kuhn's Ztschr. XXVIII 300). 2. pl. of the *s*-aorist Skr. *trādhvam* Av. Gāp. *prā-z-dūm* from Ar. *trā-* 'protect'; in like manner Skr. *á-rādhvam* beside 3. pl. *á-rā-s-ata* from Aryan *rā-* 'present, grant'. Skr. 2. pl. *ádhvē* 'ye sit' beside 3. sg. *ás-tē* : Gr. ἡσ-θε ἡσ-ται. *adaghná-* from **az-d* 'reaching up to the mouth' (*ás-*). Cp. Skr. *dēhi* Av. *dazdi* imper. 'give' from Indg. **de-d'-dhí*, § 476.

Prim. Ar. *žd(h)*, e. g. *īžd(h)* = Skr. *īd(h)*, Iran. *ižd*. Skr. *nīdā-s* from **nižda-s* prim. Ar. **nižda-s* Indg. **ni-zd-o-s*, see § 590. Skr. *piḍáyami* 'I press' from **pi-zd-* ('sit up') : cp. Gr. πιέζω 'I press' from **πι-σεδ-μω* or **πι-σε-σδ-ω*. Av. Gāp. *ciždi* from *caēš-* 'make known'. Skr. *dū-dāś-* 'impious' *dū-dhí-* 'having an evil disposition' Av. *duž-dah-* 'acting badly, villain', cp. Skr. *duš-* Gr. δυσ-. Skr. 2. pl. mid. of the *s*-aorist *ástōdhvam* from **a-stō-ž-dhvam* : 3. sg. *á-stō-š-ṭa*, pres. 1. sg. *stāu-mi* 'I praise, value'. Cp. Skr. *liḍhá-s* 'licked' from prim. Ar. **liždha-* i. e. **liğdha-*, § 404.

Rem. 1. 2. sg. imper. *dviḍḍhi* (to indic. *dvēš-mi* 'I hate') instead of **dviḍhi* was a new formation of the same kind as *diḍiḍhi* (to *diḍēš-mi* 'I show'). See § 404 rem. 2.

Prim. Ar. *zhh* = Skr. *dbh* (Iran. *zb*, not found). Skr. instr. pl. *uśādbhiḥ*, *vidvādbhiḥ*, *mādbhiḥ* from *uśás-* 'dawn, day-break', *vidvās-* 'knowing', *mās-* 'moon, month'.

Rem. 2. The endings of the instr. pl. of stems in *-as-* Skr. *-ō-bhiḥ* Av. *-ē-biḥ* O.Pers. *-a-biḥ* were new formations. See the accidentence.

Prim. Ar. *žbh*, e. g. *ižbh* = Skr. *iḍbh* Av. *ižb*. Skr. instr. pl. *dviḍbhiḥ* from *dviḥ-* 'hating'. Skr. *vi-prūḍbhiḥ* from *vi-prūḥ-* 'crumb, small spot'. Av. dat. du. *snaipižbya* from *snaipiš-* n. 'sword'. Av. instr. pl. *da-d-ūž-liḥ* from *da-d-ūš-* part. perf. act. from *da-* 'give, place'. Cp. Skr. *viḍbhiḥ* Av. Gāp. *vīžbīš* from Skr. *viš-* Av. *vīs-* 'clan, village community', orig. **uiğbhis* § 404, 3.

Rem. 3. The Skr. endings of the instr. pl. of stems in *-iḥ-* and *-uḥ-* *-ir-bhiḥ* and *-ur-bhiḥ* were new formations. See the accidentence.

Prim. Ar. *azg* = Skr. *adg* Av. *azg*. Skr. *madgú-ḥ*, a water fowl, Av. *mazga-* 'marrow', rt. *mezg-*, see § 590. But

prim. Ar. *azj* passed through *adi* into *ajj* in Skr. (cp. *újjiti-š* 'victory' from **ud-jiti-š*, § 355). *májjāmi* 'I duck' *majján-* 'marrow' from the same root *mezg-*. *sajjatē* 'clings to something' from **sa-zj-a-* redupl. (cp. *sa-šc-a-ti* 'follows' from *sac-*) : cp. Lith. *segù* 'I fasten'.

z was dropped between explosives and spirants (cp. § 557, 3). Skr. *ámugdhvam* i. e. **amugzdhvam* 2. pl. mid. of the *s*-aorist (3. pl. *ámukṣata*) from *muc-* 'loosen'. In *sá-gdhi-š* 'a common meal' i. e. **sa-gzdhi-* *gzdh* was = *ghst* (*ghas-* 'eat'), and in the 3. du. *babdhām* from **ba-bzdham* *bzdham* was = *bhst* (3. sg. indic. pres. *bá-bhas-ti* 'chews'), cp. § 589, 4. From the fact that we have here *gdh*, not *gđh*, it cannot without further consideration be concluded that the dropping of the sibilant was older than the prim. Ar. transition of *z* to *ž*. *gždh* may have existed in prim. Ar. and have become *gdh* in the Skr. separate development, before prim. Ar. and prim. Skr. *ž* and *š* acquired the cerebral articulation (*ž*, *š*).

§ 592. Armenian. The only sure examples seem to be *nist* 'a lying, nest' and *ost* 'branch', see § 590. On the sound-shifting cp. §§ 361. 484.

§ 593. Greek. *z* was retained in combination with mediae; in writing it was not sufficiently distinguished from *s*.

σβέννυμι 'I quench, put out' aor. *ἔσβην*, probably from a weak-grade root form *zg-*, of which the strong-grade *seg-* exists in Lat. *sēgni-s*. *πρέσ-βυ-ς* *πρέσ-γυ-ς* 'old', the origin of which is not quite clear (cp. § 428 c). The voiced pronunciation of the *σ* is vouched for in these words by the appearance of *ζ* (*ἔσβέννυμι* *πρεζβυτής*), which came into use during the Hellenic period.

zd appears as *ζ*, Lesb. *σδ*. *ὄζο-ς* Lesb. *ὄσδο-ς* 'branch': Goth. *asts*, see § 590. *ἴζω* 'I set' Lesb. *παρ-ίσδω* : Lat. *sīdō*, Indg. **si-zd-ō*, fr. root *sed-*; for Skr. *sīdāmi*, which cannot be separated from these presents, we should expect **sīdāmi*; this verb probably had *d* for *ḍ* through association with *sādami* *sasāda* etc. It remains doubtful whether *ἔζομαι* arose from **σε-σδ-ο-μαι* or **σεδ-ιο-μαι*. Cp. further *Διόςδοτο-ς* *Διόζοτο-ς* 'god given'

(*Διοσ-* gen. sg.) and *Ἀθήνας* 'to Athens' = *Ἀθήνας-δε*. Ion. Att. ζ was probably only the graphic representative of *zd*, cp. § 493 rem.

z before mediae became dialectically *ρ*, as Thess. *Θεορ-δότηο-ς* beside Ion. etc., *Θεόςδοτο-ς* (new formation after *Διόςδοτο-ς*); cp. Eretr. *ὀμνυούρα* § 489, Cret. *κόρμο-ς* § 565, El. *τίρ* § 653, 6.

z before mediae asp. became along with these voiceless in prim. Greek (§ 495). *ἐρέβισ-μι*, prim. f. **regez-bhi*, § 590. Aor. *ἔσχε-ο-ν* 'I got, had', prim. f. **e-zgh-o-m*, rt. *segh-*. *ἴσθι* 'be' prim. Gr. **izdhi* with vowel prothesis, caused by *z* (§ 626): Av. *zdi*, § 590. Cp. *ἴσθι* imper. 'know' from Indg. **uidʰhi*, rt. *uejd-*, § 494.

§ 594. Italic. Sure examples are found in Latin only.

zg became *rg* (cp. 569). *mergu-s* from rt. *mezg-*. see § 590.

z was dropped before *d*, with 'compensation lengthening' after short vowels. *nīdu-s* fr. Indg. **ni-zd-o-s*. see § 590. *pēdō pōdex* from **pezdō *pozdex*: Gr. *βδέω* 'I break wind' from **βzd-ίω* (cp. § 334). Sloven. *pezdēti* 'to break wind'. With *stdō* (see § 593) Bucheler connects Umbr. *sistu*, as being *sīditō*; but this explanation of the form is very doubtful. Cp. further *trēdecim* fr. **trēz-decim*, *jūdex* fr. **jouz-dex*, *quīdam* fr. **quīz-dam*, *idem* fr. **iz-dem*: the *s* in *cūjusdam ejusdem eīsdem* etc. and doubtless also the *s* in *isdem* = *īdem* had been introduced by analogy, just as *m* for *n* before *d*, see § 207.

rzd became *rd* in *hordeum*, prim. f. **ghyzdejo-m*: OHG. *gersta* 'barley' (Gr. *καριθή* is to be separated from it), and in *turdu-s turdēla*: O.Icel. *þrqstr* MHG. *drostel* Lith. *strāzda-s* 'thrush'. We are not, however, certain whether we have Indg. *zd* or *dʰd* in these words.

Lat. *sp*, *st*, *sc* are to be expected as the regular representatives of original *zhh*, *zdh*, *zgh*, cp. *st* from *dʰdh* § 507. Perhaps here belong also *hasta* (see § 507) and *fastīgīu-m* (see § 595).

nōbīs vōbīs from **nozbīs *vozbīs* or **nōzbīs *vōzbīs* with Indg.

bh-suffix (see page 123 foot note), cp. *nos-ter*, *vos-ter* and O.Bulg. gen. loc. *nasŭ* from **nās-sŭ*; but these forms with *zb* were not the regular continuation of the Indg. original forms, cp. *crēdō*, which had probably taken the place of regular **crestō* (§ 507 rem.).

§ 595. Old Irish. *z* before mediae became *ḍ* in Irish and Britannic. Gallo-Lat. *mesga* 'whey', which is to be read *mezga*, became first of all in those branches **meḍga*, thence O.Ir. *medg* Mod.Ir. *meidhg*, Cymr. *maidl* (from **meḍja*). **nizdo-s* (§ 590) became Ir. Brit. **neḍdo-s*, thence O.Ir. *net* Cymr. *nyth* (from **nyḍḍ*) Bret. *neiz*. Cp. § 521.

In like manner O.Ir. *brot* 'sting, prick' from prim. Kelt. **brozdo-s*, **borzdo-s* (cp. *frass* § 274). The root is *bha^rs-* (Skr. *bhṛṣ-ṭi-ṣ* 'point, prong'), and OHG. *brort* 'edge' Ags. *brord* 'sting, prick' O.Icel. *broddr* 'point' and O.Bulg. *brazda* 'furrow' show that the Indg. form contained *zdh*. With these is also related Lat. *fastigium* from **farst-*; it cannot however be determined, whether its *st* was Indg. *zdh* or Indg. *sṭ* (cp. Skr. *bhṛṣ-ṭi-ṣ*).

§ 596. Germanic. *z* + media became *s* + tenuis in prim. Germ. (§ 541, 6). OHG. *masca* 'mesh' OHG. *nest* Goth. *asts* (§ 590), OHG. *mast* 'a feeding' (§ 591), OHG. *gersta* MHG. *drostel* (§ 594) have already been mentioned. In addition to these possibly OHG. *nestilo* 'loop of riband' to Lat. *nōdu-s*; OHG. *geist* 'spirit' to Skr. *hṛḍa-s* 'anger' *hṛḍ-* 'be angry' (3. sg. perf. mid. *ji-hṛḍ-ē*), to which perhaps also Av. *zōiḏiḥsta-* superlative with the meaning 'very bad' (v. Bradke Kuhn's Ztschr. XXVIII 295 ff.); OHG. *mast* 'ship's mast' to Lat. *mālu-s*, if this arose from **mādo-s* (§ 369).

z + media asp. became *z* + voiced spirant in prim. Germ., further *z* + media (§ 541, 7). The transition of *z* to *r* in West Germ. and Norse was mentioned already under the prim. Germ. *z* which arose from Indg. *s* (§ 581). OHG. OS. *marg* Ags. *mearg* O.Icel. *mergr* 'medulla', Goth. **mazga-* : O.Bulg. *mozgŭ* etc., see § 590. OHG. *brort* 'edge' etc. : O.Bulg. *brazda*, see § 595. Goth. *razda* 'pronunciation, language' OHG. *rarta* Ags. *reord* O.Icel. *rǫdd* 'voice, language' from original **raz-dh-*, to rt. *rā^rs-* :

Skr. *rásatē rásati* 'sounds, screams'. Ags. *heord* O.Icel. *haddr* 'hair' beside O.Bulg. *kosa* 'hair' Lith. *kasà* 'braid of hair'. Goth. *mizdō* f. 'pay, reward' OHG. *mēta miata* (cp. § 75 rem. 2) OS. *mēda* Ags. *mēd* and *meord* 'pay, rent': Skr. *mīdhā-* 'prize of battle, combat' Av. *mīžda-* 'reward', Gr. *μισθός* O.Bulg. *mīzda* 'pay'; with compensation lengthening in West Germ. comes OS. *līnon* beside OHG. *līrnēn* (§ 582 p. 436 § 621).

§ 597. Baltic-Slavonic. *z* + media and *z* + media asp. must have fallen together, as in Iran. and Keltic.

Lith. *rezgù* 'I knit': Skr. *rājju-*š 'string, rope'. Lith. *mezgù* 'I knot, knit': OHG. *masca*, see § 590. Sloven. *pezdēti* Little Russ. *pezdity bzdity* Czech *bzdíti* 'to break wind': Lat. *pēdō*, see § 594. It is doubtful whether Lith. *strāzda-s* 'thrush' belongs here, see § 594. Cp. further O.Bulg. *noz-dri* 'nostrils' and *mez-dra* 'fine skin', § 585 rem. 3.

O.Bulg. *mīzda* 'pay': Goth. *mizdō*, see § 596.

It is doubtful whether O.Bulg. *mozgū* 'marrow' contains Indg. *zg* or *zgh*, see § 590.

Indg. *j*.

§ 598. This spirant can be established as Indg. with most certainty initially before vowels.

Rt. *jeug-* 'yoke': Skr. *yugá-m* Gr. *ζυγός* Lat. *jugu-m* Goth. *juk* Lith. *jūnga-s* O.Bulg. *igo* (from **ǵigo*, § 145) 'yoke'. Rt. *jōs-* 'gird': Av. *yās-ta-* Gr. *ζωσ-τός* Lith. *jū's-ta-s* 'girded', O.Bulg. *po-jas-ně* 'girdle'. Rt. *jes-*: Skr. *yás-ami* 'I bubble', Gr. *ζέω* 'I seethe, bubble', OHG. *jesan* 'to ferment, foam'. Skr. *yáva-s* 'corn, barley', Gr. *ζεῖαι* 'spelt', Lith. *javai* pl. 'corn'. Skr. *yūṣa-* 'sauce, broth', Gr. *ζύμη* 'leaven', Lat. *jūs jūsculu-m* *jūreu-s*, O.Bulg. *jucha* 'sauce, soup'.

Greek alone kept initial *j-* and *ǵ-* apart, the former being represented by *ζ*, the latter by the spiritus asper (§ 129). *j-* fell together with Indg. *dǵ-* in prim. Greek, hence *ζυγός* like *Ζεύς*, *δυγός* like *Δεύς*, *τών* (*ζόν*) like *Τῆνα* (*Ζῆνα*), see § 493. In the other Indg. languages the two sounds fell together in *j*. But here, too, the original difference can still be

recognised, in so far as an old inherited weak-grade form with *i* or *ī* (as representative of *j* + *a*-vowel) is wanting in roots beginning with *j*-. Cp. e. g. Skr. perf. mid. *yēṣ-ē* from **je-js-*, part. pass. *yas-tā-* from *yas-* = Indg. *jes-* 'bubble' (Gr. ζέω) as contrasted with *īj-ē iṣ-tā-* from *yaj-* = Indg. *īag-* 'respect, honour' (Gr. ἄγιο-ς).

It is less certain that *j* stood beside *ī* medially also in the period of the prim. Indg. community. The assumption of a rt. *kej-* 'lie' for Skr. *śē-tē* (part. perf. *śa-śay-ānā-s*) Gr. κεί-ται and of a rt. *tjeg-* 'leave, withdraw' for Skr. *tyaktā-s* Gr. σεντό-ς (on *σ-* see § 489) is nevertheless not improbable. Cp. § 117.

OTHER COMBINATORY SOUND-CHANGES.

§ 599. In the first Section (§§ 28—598) we considered the history of sounds by taking each of the prim. Indg. sounds, so far as was possible by itself, and following its development through the separate languages. There thus remains a number of change-processes which could hardly be fully and sufficiently discussed, because in these either a great number of different sounds would be concerned in quite the same manner, or because there are more complicated changes which a rather large series of elements underwent at the same time within a phonetic unity (word-unity or sentence-unity).

These processes are as follow:

CONTRACTION (HIATUS, ELISION).

§ 600. By contraction we understand the uniting together under one syllabic accent, of two vowels or sonants generally, which come directly together and are pronounced with a separate expiratory impulse. In this way arise either simple long vowels (Gr. ᾄθλον from ἄεθλον) or diphthongs (Gr. παῖς from πάις).

We saw in §§ 111—116 that contractions took place even in the period of the prim. Indg. community.

There is sufficient reason for assuming that all cases of hiatus, caused by the addition of stem-forming or flexional elements, were removed already in the Indg. prim. period, so that every historic word-form containing one root only, which exhibits medial hiatus, did not assume this state until the period of the separate developments. Cp. § 111 rem.

Rem. No hiatus existed from the very first in the sonantal combinations *ia*, *ua*, *ya*, *ra* in the interior of such unitary word forms. *i*, *u*, *n*, *r* were here pronounced as glides from the prim. Indg. period onward, e. g. **pātr-iō-s* = Skr. *pitr-īya-s* Gr. *pātr-ēo-s* Lat. *patr-īu-s*, **is-pro-s* = Skr. *iṣ-irā-s* Gr. Coreyr. *i-aeō-s*. See § 117.

On the other hand hiatus might still have occurred at the point of junction in compounds at the period of the dissolution of the prim. Indg. community, e. g. **juqto-ekyo-* (**juqto-* 'yoked', **ekyo-* 'horse'). In Vedic we have *yuktaaśva-*, in Av. *yuxtaaspa-*, in O.Bulg. *dobrookū* 'beautiful-eyed' etc., and though it may be in itself highly possible that all such compound forms with hiatus are due to composition in the individual languages, yet the fact, that the pure compounds in the separate languages go hand in hand with the generally later juxtaposita as regards the treatment of the junction, speaks strongly in favour of the assumption of an open **juqtoekyo-* directly inherited from the Indg. primitive language. In Sanskrit contraction took place: class. Skr. *yuktāśva-s* see above, *prārtha-* 'implements' from *pra+artha-*, *apāṅga-* 'outer corner of the eye' from *apa+āṅga-*, *suktā-* 'beautifully spoken' (Ved. *su-uktā-*). Elision in Greek: *ἰνπ'αγωγό-s* 'carrying horses', *ἀν'άγω* 'I lead away'; beside these *προαγωγό-s* *προάγω*. Elision in Latin also: *mult'angulu-s*, *ap'eriō* (§ 499), *ab'igō*. Hiatus in O.Bulg.: *dobrookū* see above, *poorati* 'to plough'.

Opportunity for contractions in the individual developments was given

1. through two originally independent words, the first originally ending in and the second originally beginning with a sonant, entering into a fixed combination;
2. through forms with hiatus having been newly made

after the type of forms without old inherited hiatus (e. g. Hom. *στήομεν δώομεν*);

3. through a consonant or combination of consonants disappearing between sonants in the body of a simple word or in the junction of two words drawn near together.

§ 601. Aryan. Contraction seems not to have taken place in the old Aryan dialects when a consonant was dropped in the body of a word.

Rem. On O.Pers. 3. sg. pres. *pātiy* beside 3. sg. pret. *apaha* see § 558 rem. 1 and on O.Pers. *māhyā* Bartholomae Bezenb. Beitr. IX 309 f.

Contraction however was frequent through the fusion of two stems of a compound or of two words. But, on the one hand, it is difficult here to separate that which has arisen phonetically from that which is merely due to the imitation of older type-forms on the other hand; it can hardly be determined how far the natural language was ruled by the constraint of metre and by grammatical reflexion. In Vedic and Avestic the contracted and uncontracted forms, the latter recognisable as such through the metre, existed side by side without any perceptible differences. In classical Sanskrit the contracted forms with few exceptions became the rule.

Examples. Skr. *yuktaśva-* beside *yuktaaśva-*, Av. *yuxtāspa-* beside *yuxtaaspa-*, see § 600. Skr. *upāiti* Av. *upāiti* 'draws near', prim. Ar. **upa+aṭi* (simple form Skr. *ṛti* Av. *aṇti*). Skr. *avāhanam* O.Pers. *avājanam* 'I slew, killed', prim. Ar. **ava+ajhanam*. Skr. *ēhi* imper. 'come near' = *a+ihi*. O.Pers. *paraidiyy* imper. 'go to' = *para+idīy*, Skr. *parēhi*. Skr. *maharṣi-ṣ* 'great wise man' from **mahā+rṣi-ṣ*. Skr. *sūktā-* (Ved. *suuktā-*) Av. *hūxta-* 'well spoken'. Skr. *adhīṣa-s* 'supreme lord' from **adhi+īṣa-s*.

§ 602. Armenian. Contraction after the loss of *s* in *koir* 'sister' pl. *kor-ē*, see § 561; after loss of *t* in *haiṛ* 'father' pl. *har-ē*, see § 483; after loss of *u* in *kea-n-ē* 'life', *kea-* (monosyllabic) from **kiya-* = **gīyo- *gīya-*, see §§ 421, etc.

§ 603. Greek. Very many contractions in consequence of the dropping of intersonantal *i*, *u* (*f*), *s* (§§ 130. 165. 564).

Examples: Att. *φορῶ* 'I carry' from *φορέω*, older **φορεῖω*; *παῖς* 'boy' from *πάις*, older **παφι-ς*; *γένους* 'generis' from *γένεος*, older **γενεσ-ος*; *ἵππου* 'equi' from *ἵπποο*, older **ἵππο-σιο*. Since the loss of consonants took place at different times — partly in prim. Greek (*s*, *ḡ*), partly in the course of the individual dialects (*u* and *i* as remnant of *sḡ*, cp. § 639) —, the contractions took place at various periods. Most of them did not happen until after the dialectical variation was already considerably developed. The uncontracted forms were most completely put aside in Attic, while Ionic preserved the full forms to the greatest extent.

When the components of contraction were qualitatively equal, simple long vowels uniformly arose, e. g. Att. *Ἀθηναῖ* from *Ἀθηναῖα*, *βασιλῆς* 'kings' from *βασιληῖς* Cyp. *βασιληῖς*, El. and elsewhere *Δί* from (Att.) *Δί*, older *Δίφι*. *εε* and *οο* gave in Ion.-Attic., partly in the Dor. dialects as also in North West Greek, close *ē* (written *ει*) and close *ō*, which was further weakened to *ū* (written *ου*), e. g. *τρεῖς* 'tres' from **τρεῖ-ες* Skr. *tráy-as*, gen. Hom. *ῥοῦς* from **ῥοσ-ος* cp. Skr. gen. *uśás-as* Lat. *aurōr-a*. These were no more real diphthongs than the *ει* and *ου* (§ 618) which had arisen by compensation lengthening.

If a monophthong arose from two vowels having a different quality, the levelling was sometimes progressive, e. g. Att. *ἄκων* 'unwilling' from *ἀέκων*, older **ἀ-φεκων*, Dor. gen. sg. *Ἀτρεῖδᾱ* from (Hom.) *Ἀτρεῖδᾱο*, gen. pl. fem. *τᾶν* 'of the' from (Hom.) *τάων* (Skr. *tásam*, Lat. *istarum*), Att. *Διομήδῃ* from (Hom.) *Διομήδεα*, older **-εσ-α*, Att. *ἐλάττους* Dor. *ἐλάσσως* pl. 'smaller' from *-ο(σ)-ες*, cp. Lat. pl. *mā-jōr-ēs* (*oe* after complete assimilation of the *ε* to *o* was treated like original *oo*); sometimes regressive, e. g. Att. gen. pl. fem. *τιῶν* = Dor. *τᾶν*, gen. sg. *γένους* from *γένεος*, **-εσ-ος* (*ε* became *o* by attraction to the *o* which was pronounced close, and this gave rise to *ū*).

So-called diphthongs arose if the second element was *i* or *u*, and the first an *a*-, *e*- or *o*-vowel, as *παῖς* from *πά(φ)ις*, *οἷς* 'sheep' from *ὄ(φ)ι-ς*, *εἶ* 'thou art' from **ἐ(σ)ι*, *δαυλό-ς* 'thick, shaggy' from **δα(σ)υλο-ς* cp. *δυσύ-ς* 'densus'. Furthermore *ευ* from *εο*

in Lesb., Ion., Rhod., as *φορεῦνται* from *φορίονται*, gen. *βέλεις* 'of an arrow, dart' from *βέλεος*, and *-av* (*āv*?) from *-āo* in Arcad.-Cypr., as gen. *Ἀπολλωνίδαν*.

If the first of the vowels in the contraction was long, it was frequently shortened before the proper contraction, see § 611.

Hiatus rarely arose through new formation in non-compounded words. The treatment was the same as the hiatus which was produced through the loss of consonants. Conj. Hom. *στήομεν*, *διώομεν*, Att. *στώμεν* *διῶμεν*; *στήομεν* stands in contrast with Arcad. *ἴσταιροι*, notwithstanding the clearer development of the original elements of the formation, just as later new formations like e. g. Lat. *coagitō* as opposed to *cōgitō* (§ 604). Hom. *ζῶός* was a new formation for older *ζῳός*. Such new creations did not come into existence until after hiatus had arisen in many cases in the body of a word through loss of *i* etc.

Compounds with old inherited hiatus and the union of two words, the one beginning and the other ending in a vowel. Elision is seen e. g. in *ἵππ'αγωγός*, *ἀπ'άγω*, *ἐμ'αυτόν*. Hiatus remained in *προ-άγω* *προ-αγωγός*. It cannot be decided whether in forms like *πολύανδρο-ς* *βωτιάνευρα* *περίεμι* there was spoken in prim. Greek and later in the commissure *-uā- iā-* (hiatus) or *-uia- -iia-*¹). Prim. Greek contraction e. g. in *ταῦτα* from **τα ὕ τα*, *οὐ[-τος]* from **ὅ ὕ* = Skr. *sá u*; *ὕ* = Skr. *ú* is a particle. In individual dialects e. g. in Att. *τάλλα* = *τὰ ἄλλα*.

§ 604. Italic. Most contractions after the loss of medial *i* (see § 134). A part of them may be prim. Italic. Lat. *trēs* from **tre(i)-es*, Umbr. *puntes* (*ē*) 'pontes' from **ponte(i)-es*, cp. Skr. *tráy-as*. Lat. *monēte* from **mone(i)e-te*, cp. Skr. *mānáyata*. Lat. *stō* from **stā-iō*, *amō* from **amā-iō*, Umbr. *suboco* 'adoro' (cp. perf. *subocavi*). Lut. *stat* from **stā-je-t*, Pelign. *incubat* 'incubat'. Lat. *amēs* from **amā-iēs* (Indg. **-iois*), cp. *cap-iēs*.

The combinations *eō*, *eā*, *aē* remained uncontracted in Latin. *moneō*: Skr. *mānáyāmi*. *eam* 'her': Goth. *ija*. *aēnu-s*: Umbr. *ahesnes* 'aēnis', cp. Skr. *áyas-*; on the other hand *aer-is* =

1) Osthoff's remarks (Morph. Unt. IV 383) on forms of this kind, are quite uncertain.

Skr. *áyas-as*¹⁾, after which the nom. acc. *aes* was formed anew (**a(i)os* would have become **ōs* or **ās*). Cp. also Umbr. *eam* 'eam', Osc. *í o-k* 'ea'.

Vowel contraction after the loss of *h*. Lat. *nēmō* from **ne-hemō*, *bīnu-s* from **bi-hinu-s*, *praebeō* beside *prae-hibeō* Umbr. *pre-habia* 'praebeat'. See § 510. Cp. Umbr. *mes-tru* 'maior', Osc. *mais* 'magis': Lat. *magis māior*.

Old inherited hiatus and hiatus which had arisen anew through new compounds. Elision: e. g. *mult'angulu-s*, for which *multiangulu-s* came into existence at a later period after the analogy of *multi-foru-s* etc.; *noenum* (*nōn*) from *ne+oenom* 'not one'; *nūllu-s* from *ne+ūllu-s*. Contraction: *dēgō* from **dē-agō*, *cōgō* from **co-agō*, *cōpula* from **co-apula*, *prōmō* from **pro-emō*, *cōpia* from **co-opia*. Such contraction did not take place however if the second vowel was long and had the principal accent: *co-āctu-s*, *cō-ēgī*, *co-āgulu-m*, thus the same case as *aēnus* beside *aer-is*.

Rem. 1. The exception *coepī* beside *coēpī* (Lucretius) I explain with Osthoff (Zur Gesch. d. Perf. 158) by assuming that contraction took place regularly in *co-ēpīstī* *co-ēperāmus* etc. and that this form of the stem became generalised. That in the form-system *coēpī* forms like **coepīstī* had to give way, was due to the uncompounded form *ēgī*.

Forms like *co-agitō* *co-alēscō* were created at a later period and remained uncontracted; cp. older *cōgō* *cōgitō*.

Rem. 2. I do not venture an opinion on the relation of the dissyllabic *neuter* to the trisyllabic *ne-uter* and of both to *n'ūllu-s* etc. A plausible explanation must first be given for the initial sound in *uter* etc., of which we have already spoken in § 431 rem. 3.

§ 605. Old Irish. Very many contractions in consequence of the disappearance of intersonantal *p* (§ 339, the loss belongs to the prim. Kelt. period), *i* (§ 138), *u* (§ 174) and *s* (§ 576). *tē* (pl. *tēit*) 'hot' from **te(p)ent-*. *-tau* *-tō* 'am' from **stā-(i)ō*, rt.

1) The contraction of **a(i)er-* to *aer-* did not occur until after the later Lat. accentuation came into being (§ 681). For if it had already taken place in the period of the older, **āēsno-s* would in all probability have become **āēsno-s*. The accentuation **aēsno-s* preserved this form from contraction.

stā- 'stand'. *biid* and later *bīd*, gen. of *biad* 'nourishment' (prim. Kelt. **biyoto-n*), Gr. *βίωτο-ς*. *ō* from prim. Ir. *ou* underwent fusion with the following vowel, *ōac*, later *ōc* 'youth' : Cymr. *ieuanc* (§§ 212. 243); gen. pl. *bō n-* 'boum' : Gr. *βο(F)-ων*. *beri* 'fers' from prim. Kelt. **bere(s)i*.

Contraction takes place after the loss of *f* : *tōr- tuar-* from *to-for*, *tō- tū* from *to-fo-*. The same phenomenon also frequently appears where words meet together having prefixes beginning with or ending in a vowel, e. g. *forōcrad* 'indicatus est' = **fo-ro-od-garad*. In this case elision also appears elsewhere, as e. g. *tar-* from *to-ar-*, *tess-* from *to-ess-*, *tind-* from *to-ind-*.

§ 606. Germanic. Processes of contraction from prim. Germanic, Gothic and OHG. are unknown to me.

Rem. In Goth. *salbōm* OHG. *salbōmēs* 'we anoint' there is no contraction of *-ō(i)a-* to *-ō-*, see the accident. Goth. *bairáu* (1. sg. opt. to *baira* 'fero') hardly from **bera(i)u(n)*, see § 142. Phenomena like prim. Germ. **aiz-a-* 'ore, metal' from **aiz-a-*, OHG. *eidehsa* 'lizard' from *egidehsa* are rather to be regarded as examples of syncope than of contraction, see § 635.

Hiatus, which had arisen in word-forms through new formations made by analogy and at the point of junction in compounds was partly permitted and partly removed by elision.

Goth. *aláuk* sg. pret. of *áukan* 'to increase'; *salsōum* (trisyllabic) pl. pret. of *saian* 'to sow'. *ga-arman* 'to pity', *fra-itan* 'to consume', *ga-unlēdjan* 'to make poor', *sa-ei* relat. 'qui'. On the other hand *nist* 'is not' from *n(i)-ist*, *sei* 'quae' from *s(i)-ei*, *karist* 'it troubles' from *kar(a)-ist*, *þammuh* 'to this' from *þam-m(a)-uh*.

OHG. *ka-augan* *ke-auckan* *gi-ougen* 'to bring before one's eyes, show' *be-unwerdēn* 'to appear despicable', MHG. *misse-ahten* 'to despise'. On the other hand *galtiro* (beside *gialtiro*) 'contemporary', *nein* 'no' from *n(i)-ein*, MHG. *binnen* 'within' from *b(i)-innan*.

That hiatus remained at one time, and that at another elision took place, is due to the various influences of sentence accentuation. That elision occurred already in prim. Germ., is

rendered probable by Goth. *frēt* OHG. *frāz* 'ate' (of lower animals); prim. Germ. 3. sg. **frēti* from **fra-ēti*. With this cp. OHG. *fr-avili* 'outrageous' to OHG. *avālon* 'to trouble oneself' O.Icel. *afl* n. 'power, strength'.

§ 607. Baltic-Slavonic. The commissure of compounds only comes under consideration.

In Lithuanian hiatus is generally permitted or there is elision *pri-iĩnti* 'to accept' (*priiĩnti* is also heard). *pā-ausi-s* 'the part about the ears'. *pa-eĩti* 'to go away'. *be-aũsi-s* 'one without ears'. *be-urėdi-s* 'one without office'. On the other hand *tateĩt* 'he may come' from *te-at-eĩt*. *timė* 'he may take' from *te-imė*. *natiĩnk* 'do not take away' from *ne-at-iĩnk*. *neĩk* 'do not go' from *ne-eĩk*. *pasiĩnti* 'to take up' from *pa-si-iĩnti*. Differences of sentence accentuation have been at work also here (cp. § 606).

Older East Lithuanian shows a real contraction, as there *ne* 'not' along with the *a-* of some prepositions appears as *no-*, e. g. *notamenu* 'I do not remember' = *ne ata-menu*. In the first instance *ne-* had probably become *na-* by assimilation. See Garbe Lit. und Lett. Drucke des 16. und 17. Jahrh., B. IV. p. XXV.

In Old Bulgarian partly hiatus, partly contraction. *dobro-oku* 'εὐόφθαλμος'. *golo-qsiũ* 'beardless' (*golo-* 'naked, bare'). *mũnogo-učeniũ* 'πολυμαθής'. *po-orati* 'to plough'. *pro-iti* 'to go through'. *pri-iti* 'to go to'. *pra-otĩcĩ* 'grandfather'. Imperf. *želėachũ* to *želėja* 'I wish', *dėlaachũ* to *dėlaja* 'I do'; the second member is **ėchũ* **jachũ* 'eram', see the accident. Forms of the compounded adjectival inflexion: gen. sg. *novaago* from *nova jego*, loc. sg. *novėēmĩ* from *novė+jemĩ*, dat. sg. *novuumu* from *novu+jemu* (*novũ* 'new', stem *novo-*); beside this loc. sg. *doblĩmĩ* from *dobli+jemĩ* (*doblĩ* 'brave', stem *doblje-*, cp. § 84). Beside these also contracted forms already in the oldest monuments: *priiti*, *želėchũ*, *dėlachũ*, *novago*, *novėmĩ*, *novumu*, *doblĩmĩ*. Similarly instr. sg. *novymĩ* from *novy-(j)imĩ*.

A very old contraction seems to occur in *nėmĩ* 'am not' *nėsi* 'art not' etc. = **ne-esmĩ* **ne-esi* etc., dating back to the period when initial *e-* had not yet become *je-* (*jesmĩ*), see § 666, 1.

SHORTENING OF LONG VOWELS.

§ 608. Simple long vowels may be shortened under very different relations and from very different causes. We treat here only the most important phenomena of vowel shortening.

Shortenings happened already in the period of the Indg. prim. community under the influence of the chief accent on the following syllable, as **stató-s* (Skr. *sthitá-s* Gr. *σταρό-ς*) from **sta-tó-s*. See §§ 310. 316.

§ 609. Aryan. Shortening in Avestic in final syllables, as *brata* 'brother' = Skr. *bhráta*, see § 649, 1.

§ 610. Armenian. The long vowels had undergone shortening in most cases (if not in all) in prehistoric times. This can be controlled with the greatest certainty in original final syllables and in those syllables which preceded the penultimate syllable. For the dropping of vowels, which happened here, concerned the original long vowels as much as the short. Thus the former must have been shortened, e. g. *dustr* 'daughter' from **dustir*, older **dustēr* : Gr. *θυγάτηρ*; *l-nu-m* 'I fill' from **li-nu-m* older **(p)lē-* : Lat. *ex-plē-nunt*, O.Ir. *lī-naim* 'I fill'. Cp. §§ 632. 651, 1. 675.

§ 611. Greek. Shortening before *u*, *i*, nasal, liquid + explosive or spirant in prim. Greek. *Ζεύς* from **diēu-s* : Skr. *dyāu-š* 'sky'. *βοῦς* 'bullock' from **gōu-s* : Skr. *gāu-š*. *πλεῖστο-ς* 'plurimus' from **plēis-* i. e. **plē-* + comparative suffix *-is-*, cp. O.Icel. *flestr* from **fleistr* and compar. *fleire* § 614; the same **plēis-* also in Hom. *πλέες πλέυς* Cret. *πλίες πλίυς*; **πλεχσ-ες -ας* became **πλεχ-ες -ας*, and then *πλέες πλέυς*. Instr. pl. *ἵπποις* (*ἵππο-ς* 'horse') from **ōis* : Skr. *áśvāiṣ* (§ 115). Part. *ἄεντ-* 'blowing' (indic. *ἄημι*) from **āFhnt-* : Skr. *vānt-*; 3. pl. aor. *ἐμίγη-ν* (1. sg. *ἐμίγη-ν* 'I mixed myself') from **ἐμιγη-ντ*. *στόρνυμι* 'I spread' from **στωρ-νῦμι* beside *στω-τό-ς*, from *stg-* (rt. *ster-*); Lesb. *βόλλομαι* 'I am willing', older **βολνομαι*, from **βωλ-νο-μαι*, from **gl-* (rt. *gel-*), see §§ 306. 312. Perhaps also here belong s-aorists like *ἔψενσα ἔτεισα ἔκερσα*, cp. Skr. *ábhāutsam* etc., see § 314 p. 253.

The operation of this law of shortening was later than the transition of *-ns-* to *-nn-*. This is shown by *μῆν-ός* Lesb. *μῆνν-ος* from **μηνσ-ος* gen. = O.Ir. *mīs* Lat. *mēnsi-s* (§ 565); cp. beside this the nom. sg. *μείς* from **μενς* with regular shortening. But it was older than the dropping of final *τ* (§ 652, 5). This is shown by *ἔμειγεν* from **ἐμειγη-ντ*.

Rem. Certain exceptions to this sound-law were caused by new formations, e. g. Ion. *νῆς* 'ship' formed after *νη(ῥ)-ός* etc. beside regular Att. *νᾶς*; 3. pl. conj. act. *φέρωντι* (Dor.), *φέρωνται* for **φεροντι*, **φερονται* after *φέρωμεν* etc. (in order to distinguish the conj. from the indic.).

Long vowels remained, if the same sound-combination arose in a later period through regular transformation, e. g. *ἑῤῥστο-ς* (*ε* = *āi*) from *ἑῤῥστο-ς* 'easiest', *ὀρῶντες* 'videntes' from *ὀράοντες*.

Shortening of long vowels before vowels. Hom. *ἥρωος* = *ῆρωος* 'of the hero', *βέβλεαι* = *βέβληαι* 'art hit', Herod. *νέες* from *νη(ῥ)-ες* 'naves', *ζόη* = *ζωή* 'life', Att. *νεῶν* from *νη(ῥ)-ῶν* 'navium'. In such cases it is probably a question to some extent of medium long vowels, which could not be represented as such.

The so-called quantitative metathesis in Ionic and Attic is connected with this latter reduction of quantity, e. g. Ion. part. perf. *ἑστέωντες* 'stantes' from *ἑστη-(ῥ)όντες*, *τεθνήωντες* 'mortui' from *τεθνη-(ῥ)όντες*, Att. gen. *στῆᾱτ-ος* 'of standing fat' from **στη-(ῥ)ατ-ος* (§ 165), Att. gen. *ἰππέως* acc. *ἰππέᾱ* (*ἰππεύς* 'horseman') from *ἰππῆ(ῥ)-ος* *ἰππῆ(ῥ)-α*. This phenomenon sometimes formed the stage previous to contraction, as Ion. gen. *Πακτύω* beside *Φιλοστίδεω* cp. Hom. *Ἄτρεϊδᾶο*; Att. gen. *Πειραιῶς* acc. *Πειραιᾶ* from *-έως* *-εᾱ*.

§ 612. Italic. In Latin (it cannot be determined whether also in the other dialects) shortening before *i*, *u*, nasal, liquid + explosive or sonant. *oloes illīs* from **ōis*, see § 81 p. 74, § 115; cp. Pelign. *cnatois* 'gnatis, filiis'. *nau-fragu-s* from **nāu-fr.* or **nāu(-i)-fr.*; *claudō* from **clau(i)dō*, to *clavi-s* Gr. *κλη(ῥ)ίς*; *gaudeō* beside *gāvīsu-s*, Gr. *γηθέω* from **γᾱῥ-εθιω*, cp. § 633. *ventu-s* from **uē-nt-o-s*, cp. Gr. *ἄντ-* § 611. *membru-m* from **mēms-ro-*, see § 570. In *mēnsi-s* (Gr. Lesb. gen. *μῆνν-ος*, O.Ir. gen. *mīs*) *ē* may have been shortened and then lengthened

again in accordance with § 619. Lat. *ars artis* from **arti*-, prim. fr. **ġ-ti*-, see § 306.

Rem. 1. The nom. *bōs* must be left out of the question, since it is probably not a pure Latin word (§ 432 rem. 1).

Shortening of long vowels before vowels in Latin. *neō* from **nē(ġ)ō* : OHG. *nāan* 'to sew'. *reī*, *fideī* from *rēī*, *fidēī*, cp. also *diēī*. *illius* from *illius*. Shortening of *dē*-, *sē*- in *deorsu-m* *seorsu-m* etc. The forms with shortening got more and more the upper hand in the poets. We do not know in detail by what laws shortening took place and did not take place in the naive common language.

Long vowels in final syllables were shortened to a great extent in Latin, e. g. *equam* = Skr. *áśvām*, see § 655, 4.

In the same language shortening frequently took place under the influence of the sharply cut tone, in this case the quantity, taken from the vowel, was transferred to the following consonant; hence this was also written double. *cuppa* (and *cupa*) : Skr. *kūpa-s* 'hole, hollow'. *Juppiter* (and *Jupiter*) voc., = Gr. *Zēū náteq* (L. Havet *Mém. de la soc. de lingu.* V 230 f.). *mittō* from **mitō* : OHG. *mīdan* 'to let go, avoid'. *littera* (and *litera*, inscrip. also *leitera*). *muccu-s* (and *mucu-s*) : Gr. *ἀπο-μύσσω* 'I blow my nose' from **-μυκ-ιω* (§ 489). *allūcinārī* (and *alūcinārī*) : Gr. *ἀλύω* 'I am troubled, ill at ease' *ἡλεός* 'bewildered'. *narrāre* from **gnārāre*. *parricīda* (and *paricīda*). There are about 12 more cases which may be regarded as certain or probable. The fluctuation of the orthography in most of the examples met with, seems to be not so much due to a retention of old literary forms after completion of the process, as to the fact that a difference in pronunciation existed between these geminated consonants and other double consonants (cp. e. g. *cuppa* with *suppetō*).

Rem. 2. Analogous cases in other languages. Pāli *khiddā* beside *kīlā* = Skr. *kriḍā* 'game', Prākṛ. *pēmna* = Skr. *prēman-* 'love' *ēva* = Skr. *ēva* 'straight, even'. Mod.HG. *mutter* = MHG. *muoter*, *jammer* = MHG. *jāmer*. French (16. Cent.) *complete*, now written *complète*, = Lat. *complēta*.

§ 613. Old Irish. Shortening took place in all except chief accented syllables, e. g. the form of the feminine suffix *-a-* in pl. nom. *túatha* dat. *túathaib* i. e. *túath^aib* by § 640 (nom. sg. *tuath* 'folk') and in pl. nom. *mná* dat. *mnáib* (nom. sg. *ben* 'woman'); nom. *béo-thu* 'life' gen. *bé-thath*, from **-tū(t)s* **-tūt-os* (Cymr. *-tit*, as *duiutit* 'deitas', Zeuss-Ebel G. C. 844) : Lat. *-tat-i-*, Goth. *-dūþ-i-* (Lat. *vir-tūs*, Goth. *gamáin-dūþs* 'community'). These reduced vowels remained, if the syllable in question was the last of the word, as in the examples given above. They generally disappeared altogether, if one or more syllables still followed. See § 634.

It is not clear to me how far vowel shortening had happened either in chief accented syllables both before the appearance of the above named reductions or in the other syllables. That no vowel shortening took place before *-ns-*, is shown by *mī mīs* 'month', which can only be explained from **mēns-*, not from **mens-*, and *mīr* 'piece of flesh', only from **mēnsr-*, not from **mensr-*.

§ 614. Germanic. Vowels seem to have been shortened in prim. Germanic before *n*+explosive or spirant. Goth. *vinds* OHG. *wint* : Lat. *ventu-s*, Skr. *vánt-*, see §§ 611. 612. Less certain are Goth. *mins* (stem *mimza-*) 'flesh' : Skr. *māśá-* (cp. O.Bulg. *měso*, § 615), and Goth. *juggs* OHG. *jung* O.Icel. *ungr* 'young' from **iūnaga-z*, older **iuyunaga-z* (§ 179); whether the latter word belongs here, is uncertain, because we do not the quantity of the Goth. *u*. The same reduction before *ɿ*+explosive or spirant is seen in O.Icel. *fleire fleiri* (compar. to *margr* 'many a') from prim. Germ. **flaiɿz-ē* from **plēis-*, cp. Gr. *πλεῖστος* § 611. Cp. also Goth. *gibái* from **ǵebōɿ* and other examples in § 659, 3.

Vowel shortening took place in Goth. and OHG. in final syllables only, as Goth. *baira* OHG. *biru* 'fero' from prim. Germ. **berō*, see §§ 660. 661. But towards the end of the OHG. period the shortening of vowels in syllables without the chief accent began and this became characteristic for MHG. and Mod.HG. This shortening gradually spread more and more and in the Mod.HG.

period brought about relations which, in some respects, resemble Irish: e. g. OHG. *salbōn*, MHG. *salben*, Mod.HG. *salbŋ salbŋ*; OHG. *friuntlīh*, MHG. *vriuntlīch*, Mod.HG. *freundlich*.

§ 615. Baltic-Slavonic.

Shortening before *ī* or Nasal + explosive or spirant. Lith. instr. pl. *vilkaīs* 'with the wolves' from **-ōis*: Skr. *vfkaīṣ*, see § 115. Gerundive *jěszkant* from **-ōnt*, cp. 2. pl. indic. *jěszko-te* 'ye seek'. Acc. pl. fem. O.Lith. *rankans* 'hands' (the older form for *rankàs*) from **-ōns*, cp. instr. pl. *rañko-mis* (cp. also Pruss. *gennans* 'feminas'). Correspondingly O.Bulg. *raŋky*, which in the first instance is derived from **ronkons* (§ 219 p. 187), may also be traced back to an older **ronkāns*, see the accidence. Here perhaps also belongs O.Bulg. *męso* 'flesh': Skr. *māśā-* (cp. Goth. *mims* § 614).

The quantity of the vowels in the O.Bulg. period is not determined. *ē*, *a*, *i*, *y* must once have been long in the prim. Slav. period, since they with Lith. *ė*, *ō*, *ū*, *y*, *ū* represent the continuation of Indg. *ē*, *a*, *ō*, *ī*, *ū* (*i* also = Indg. *eī*), so too *u*, since it took the place of older *ou* (Lith. *au*). In the modern Slav. developments where we are able to control the relations of quantity, these vowels often appear as short and conversely O.Bulg. *e*, *o* = Indg. *e*, *a* *o* and the representatives of O.Bulg. *ī*, *ū* = Indg. *i*, *u* as long. These changes were undoubtedly due in a great measure to the relations of accentuation. It has not yet been settled how far the shortenings of the modern dialects had already taken place in the O.Bulg. period or in the period of the Slav. prim. community.

In Lith. the long vowels frequently suffered reduction in the final syllables, e. g. nom. *algà* 'reward' = Gr. *ἀλφῆ*. See § 664, 3.

LENGTHENING OF SHORT VOWELS.

§ 616. Aryan. In Skr. 'compensation lengthening' exists in *līdhá-* 'licked' from prim. Ar. **liždha-* etc. See §§ 404. 591.

Rem. On Av. Gāp. *astī* 'is' = Skr. *ásti*, O.Pers. *akūtā* 'he made himself' = Skr. *ákṛta* etc., see § 649, 1.

§ 617. Armenian. 'Compensation lengthening' had in all probability once taken place in the forms in which *m* and *n* disappeared after short vowels before *s*, as *us* 'shoulder' (Goth. *ams*), acc. pl. *eris* 'three' (Goth. *þrins*). Cp. §§ 202. 610.

§ 618. Greek. 'Compensation lengthening' is here a very frequent phenomenon. Att. *κτείνω* 'I kill' = Lesb. *κτείνω* prim. Gr. **κτενίω*, Att. *φθείρω* 'I destroy' = Lesb. *φθέρω* prim. Gr. **φθερίω*, see § 131 p. 119. Ion. *γοῦνα* 'knee' = Lesb. *γόγνα* prim. Greek **γονφα*, Ion. *πείρατα* 'ends' = Lesb. *πίρρατα* prim. Gr. **περφατα*, Hom. *ὅλος* 'whole, all' prim. Gr. **όλφο-ς*, see § 166. Att. *βούλεται* 'he wishes, is willing' = Lesb. *βόλλεται* prim. Gr. **βολνεται*, see § 204. Att. *τοῖς* acc. pl. masc. 'the' = Cret. prim. Gr. *τόνς*, see §§ 205 and 204 rem. 2. Ion. *ἄσσορ* 'nearer': *ἄγχι*, see §§ 489. 497. Late Att. Dor. *γίνομαι* 'I become' from *γίθνομαι*, see § 492. Ion. Att. *εἰμι* 'am' = Lesb. *ἔμμι* prim. Gr. **έσμι*, Ion. Att. *χίλιοι* 'thousand' = Lesb. *χέλλιοι* prim. Gr. **χεσλιοι*, see § 565.

It may be remarked once more here (§ 205 rem. 3) that the *ει* and *ου*, which arose by 'compensation lengthening', were not diphthongs any more than the *ει* and *ου* which had arisen by contraction from *εε* and *οο* (§ 603).

§ 619. Italic. Every vowel was pronounced long before *ns*, *nf*, *gn*, *gm* in the Latin classical period, hence vowel lengthening must be assumed for forms like *pīnsō cōnsul*, *īnfēlīx*, *dīgnus benīgnus*, *āgmen*, see §§ 208. 500. 506. A similar lengthening and at the same time suppression of consonantal elements had taken place in an older period of the Lat. language in *equōs* fr. **equo-ns*, *pīlum* fr. **pīnslo-m*, *scāla* fr. **scantsla* etc., see § 208; *aēnu-s* fr. **aēs-no-s*, *dīmoveō* fr. **dis-moveō*, *sēnī* fr. **seznī*, *subtēmen* fr. **-texmen*, *dīluō* fr. **dis-luō*, *āla* fr. **axla* etc., see § 570; *nīdus* fr. **nīzdo-s* etc., see § 594.

Rem. 1. In many cases, where vowel lengthening was formerly assumed in Latin, they are much rather pre-Italic long vowels, or diphthongs, e. g. *zeus* fr. **ēsso-s* i. e. **ēd+to-* (§ 501), *rēctu-s*, *ēptu-s* etc. It is immaterial here whether the long vowels in the cases in question had been handed down from the Indg. prim. period or whether they had arisen by new formation.

Rem. 2. The long vowels in *quīque quīntu-s*, *ōrdō* etc. are not clear to me.

§ 620. Old Irish. 'Compensation lengthening' exists in *sēt* 'way' = Cymr. *hynt* Bret. *hent*, *cenēl* 'race' = O.Cymr. *cenell*, *dēr* 'tear' = O.Bret. *dacr*, *ām* 'manus hostium' fr. **agmen* etc. See §§ 212. 518. 523. 526. The name-forms in *-agni* (*Dalagni*, *Corbagni*) on the Irish Ogam inscriptions, as the predecessors of the later in *-āin* (*Uttain*, gen. of *Uttan*).

§ 621. Germanic. 'Compensation lengthening' exists in prim. Germ. before *æχ*, e. g. **fæχō* 'I seize, catch' (Goth. *faha*) fr. **faæχō*, see § 214.

Such lengthenings did not take place in Gothic.

In West Germ. OHG. *mēta* OS. *mēda* 'hire': Goth. *mizdō*; OS. *līnon* 'to learn': OHG. *lirnen*. See § 538 p. 394. § 582. p. 436 § 596.

Many lengthenings in High German in the later phases of the language, as Alemanic *sāft* 'soft', *ūeir* 'our'.

Cp. further O.Icel. *gās* Ags. *zōs* = OHG. *gans* 'goose', O.Icel. *hūsl* Ags. *hūsl* = Goth. *hunsl* 'offering', Ags. *fif* 'five' = Goth. *fimf*, Ags. *ōðer* 'other' = Goth. *anþar*, O.Icel. *tār* 'tear' from **tahr-* (OHG. *zahar* Goth. *tagr*), Ags. *rīnan* 'to rain' = Goth. *rignjan*.

§ 622. Baltic-Slavonic.

In Lithuanian 'compensation lengthening' exists in *žast-s* (written *žastl-s*) 'goose' = OHG. *gans* etc., see § 219.

a and *e*, too, were often lengthened elsewhere in this language, but it remains to be determined by what laws.

dēga 'burns' beside inf. *dēkti*, cp. Skr. *dāhāmi*. *āria āre* 'he ploughs', 1. sg. *ariū* = O.Bulg. *orja* (cp. § 147). *tāka-s* 'footpath' = O.Bulg. *tokū* 'course, river'. *māra-s* 'pest' = O.Bulg. *morū* 'death'. Pl. *sēsers* 'sisters', cp. O.Bulg. *sestra* 'sister'. *kālna-s* 'mountain': Lat. *colli-s* fr. **colni-s* (§ 208). *āugu* 'I grow' = Goth. *auka*. *mēlžu* 'I milk' = Gr. ἀμέλω. *vēida-s* 'face', cp. Gr. εἶδος.

Rem. According to Baranowski and H. Weber Ostlit. Texte I p. XXIII sqq. it is here everywhere a question not of real long, but only of medium

long vowels. In *dě-ga ā-ria* the second mora of the medium long vowel has the accent, in *kāl-nas āu-gu* the first. Cp. § 691 rem.

in, un became *ī, ū* (O.Bulg. *i, y*) before explosives and spirants in Slavonic in the period of the prim. community, e. g. O.Bulg. acc. *gosti* 'guests' = Goth. *gasti-ns, syny* 'sons' cp. Goth. *sunu-ns*, see § 219.

O.Bulg. *vlēka* 'I draw' from **uelka, vlakū* 'draught' from **uolkū* etc., show another kind of origin of long vowels.

Vowel lengthening in O.Bulg. through following *i* in *ij* from *ij, yj* from *ǔj*, see §§ 36. 84.

Lengthenings~(date still unknown) through the influence of accentual relations can be proved in the modern phases of the language, concerning which see § 615.

ANAPTYXIS FROM CONSONANTS.

§ 623. It is here a question of the development of a short or reduced vowel from a voiced consonant, namely medially before or after another consonant, initially (prothetic anaptyxis, prothesis) and finally.

If anaptyxis takes places medially after a consonant preceded by a sonant, the syllable must be pronounced with a double pointed accent. This prepares the way for the development of two syllables from one, e. g. OHG. *berac* 'mountain' from *beřc*. If the vowel is developed from the second consonant, the latter becomes sonantal in the first instance, e. g. French *canif* from Low Germ. *knif* through the intermediate stage **cʰ(n)if* (-(n)- represents the consonantal glide).

How far the development of vowels initially and finally (in the latter case exceedingly rare) was caused by the relations of word-position in the sentence (sandhi), is left out of question here.

Rem. 1. The transition of **cʰ(n)if* to *canif* is the same process as that by which Indg. **ipnú-* became Skr. *tanú-* Gr. *τανύ-* etc. and Indg. **grrú-* became Skr. *gurú-* Gr. *βαρύ-* etc. (§§ 227. 287). The latter cases do not however belong here, because it cannot be proved that these Indg. forms originally had a shape, shorter by one syllable, corresponding to *knif*, cp. §§ 312. 313.

For comparison may also be mentioned here the case where a vowel is developed from a sonant liquid or nasal between consonants or finally after a consonant, thus e. g. Gr. *ἀπαρό-ς* *ἀαρό-ς* 'skinned' from Indg. **d̥r̥to-s*, *οὔθαρ* 'udder' from Indg. **oudh̥r*, Lat. *tentu-s* fr. Indg. **t̥no-s*, *decem* fr. Indg. **dek̥m* (§§ 223. 224. 284. 285). **agro-s* 'field' became in prim. Ital. **agrs*, thence **agers* **ager* : Lat. *ager* Umbr. *ager* Osc. *Frunter* (cp. §§ 633. 655. 9). Nom. sg. **br̥e-trā* f. 'word' (gen. *br̥e/hre*) became **br̥et̥* in Irish, thence *briathar*, cp. also *criathar* 'sieve'; here belong also *omun* 'fear' *ess-amin* 'fearless' : Gall. *Exobnu-s*; *fu-domain* 'deep' (compar. *fu-dumnu*) : Cymr. *dwfn* 'deep', Lith. *dubù-s* 'deep', both with *-mn-* from *-bn-* (§ 520). Cp. § 634. Lastly OHG. *acchar* 'field', *fogal* 'fowl', *eban* 'even' (Goth. *akrs*, *fugls*, *ibns*), concerning which see §§ 215. 277. 660, 1. 661, 2.

Rem. 2. One speaks also of anaptyctic prothesis before voiceless consonants, e. g. Gr. *ἰκτίς* beside *κτίς* 'weasel', *ἀσπαιῶ* beside *σπαιῶ* 'I struggle convulsively', Late Lat. *ispiritu-s* *istatua*, Prākṛ. *itthī-* (Gāṇ. *istri-*) = Skr. *strī-* 'wife'. So far as it is here really a question of a pure phonetic product — in many of the cases brought under this head the vowel has an etymological value (remnant of a prefix etc.) —, it is always a process of sandhi. The vowel was developed from the close of preceding words.

§ 624. Aryan.

Sanskrit. Medial anaptyxis made its appearance first in the Prākṛit dialects, e. g. *harisa-* = Skr. *harṣa-* 'joy', *paduma-* = Skr. *pādma-* 'water-rose', *sumarāmi* = Skr. *smārāmi* 'I think of', *sinēha-* = Skr. *snēha-* 'attachment', while prothesis appears already in Vedic in *irajyati* 'puts in order', *iradhatē* 'seeks to win', *ilaya-* 'resting' (beside *laya-* 'rest'), *ulōkā-* (beside *lokā-*) 'free space, world'. These forms were possibly taken from some vulgar dialect.

Anaptyctic vowels were very frequent in Avestic. The orthography fluctuated considerably, and these vowels are almost without exception of no importance for the metre. It is thus not a question of a full vowel. The development of a vowel takes place most frequently before and after *r*, uniformly before initial *r̥*, *r̥ž*, *rv* and after final *r*. It is generally represented by *e*, sometimes by *a*, *ē*, *ō* and *i*, *u*, the latter especially initially. Examples for anaptyxis from *r*, as *dādar'sa* 'rista-antar', see §§ 157. 260. From other voiced consonants : *γ'na-* 'murder' : Skr. *ghná-*; Gāṇ. *dad'mahī* 'we give' : Skr. *dadmāsi*; Gāṇ. *d'bitya-* 'the second' : Skr. *dvitīya-*.

Only *u*, between *d-r* and *g-d*, can be established with certainty as anaptyxis in Old Persian. The following or preceding syllable contains an *u*-sound in all the examples met with. *dūrūjīyāmīy* 'mentior': Skr. part. *drúhyant-* 'injuring in a cunning manner'. *sugūda- suguda-* Sogdiana: Av. *suγda-*. *ū* is to be read as *u*, see p. 25.

§ 625. Armenian. Prothesis before initial liquids, e. g. *erek* 'evening': Skr. *rájas-*. See § 263.

§ 626. Greek. A vowel between consonants is regarded as anaptyctic in many words (see among others Curtius Grundz.⁵ 727 ff., G. Meyer Gr. Gr. 95 ff., 2. edition p. 109 ff.), but only few cases are certain,¹⁾ as e. g. Lesb. *μέτεροσ*-ς from **μετεροσ*-ς = Att. *μέτριο*-ς 'within measure' from *μέτρον* 'measure' (§ 131 p. 119).

On the other hand prothesis is certain in many cases. Most frequently before liquids, as *ερυθρός* 'red' = Lat. *ruber*, *ελαφρός* 'nimble' = OHG. *lungar*, see § 266. Before *f* in Ionic: Hom. *ἐ(φ)έρση* Cret. *ἄρσα* 'dew' beside *ἔρση* *ἐρση*: Skr. *varṣá-s* 'rain'; Hom. *ἐ(φ)είκοσι* beside *(f)είκοσι* 'twenty' Lac. *βείκατι* Bæot. *φίκατι*, Lat. *vīgintī*. Before nasals probably e. g. in *ἀμέλω* 'I milk': Lith. *mélžu*; *ὀμίχλη* 'fog' (Att. *ὀμίχλη* through association with *ὄμο*-?, cp. § 564 rem. 3) *ὀμίχλω* 'I make water', inf. aor. *ἀμῶμι* in Hesych.: Lith. *miglà* 'fog', Lat. *mingō*; *ἀνεψιός* 'first cousin': O.Bulg. *netijǎ*.

That prothesis sometimes appears, and sometimes not (cp. *ἐρύομαι* and *ρύομαι*, *ἀλείφω* and *λίπα*, *ὀμόρηνμι* and *μόρηνμι*, *ἀνεψιός* and *νέποδες*) seems partly to be due to difference of dialect, and partly to be explained from various kinds of sandhi-relations.

The development of the *i-* in *ἵσθι* 'be' imper. = Av. Gāp. *zdī*, Indg. **z-dhī*, see §§ 590. 593, is older than the development of the ten. asp. from med. asp. (§ 495). Prothesis perhaps also in *ἰχθύς* 'fish' and *ἐχθές* 'yesterday'.

1) Curtius and Meyer use the term anaptyxis in a wider sense, according to which it includes the phenomena discussed in § 623 rem. 1. Many of the forms, brought forward by both these scholars, certainly contain no development of a vowel either in the stricter or wider sense, e. g. *ἱε-ε-τμός* in Curtius, *ὦλ-έ-νη* *κολ-ω-τός* in Meyer.

§ 627. Italic.

Medial anaptyxis in Latin with liquids and nasals, the vowel thus developed usually taking the timbre of the vowel in the following syllable. *pō-colo-m* *pō-culu-m* from *pō-clu-m*, *sta-bulu-m* from **sta-blo-m*, *sta-bili-s* from **sta-bli-s*, *singulu-s* from **sem-clo-s*, see § 269. Acc. *famulu-m* probably from **famlo-m*, *familia* from **fam-liā*.

Rem. 1. In the forms with *-l-* the frequent fluctuation in the orthography (cp. also *saecum* beside *saeculum*, *populus* beside *populus*, *disciplina* beside *discipulina* etc.) probably points partly to different influence of the accent in the various cases, and partly to the fact that at first only *l̥(l)* or *ʷl* (say *discipl̥lina* or *discip̥lina*) was spoken beside *l* and that this sound was written sometimes *l*, sometimes *ul*, the latter at least in the oldest period of historic Latinity. Cp. rem. 3.

Inscript. (ca. 218 B. C.) *Terebonio* = *Trebōniō*. Late Lat. acc. *magistarātu-m* = *magistrātu-m*, *carābrō* = *crābrō* (Italian *calabrone*) etc.

Anaptyxis with nasals can be established with the greatest certainty in loan-words, as *Tecumēssa*, *drachuma*, *mina*, *techina*.

Rem. 2. *sumus*, *humus*, *homō*, *hemō*, *umerus* and *numerus* hardly belong here, see § 269 rem. 568 rem. I come to no decision with regard to *terminus* and similar forms, see § 241.

Anaptyxis seems to have been foreign to Umbrian. We find it all the more frequently in Oscan. Examples for the development of a vowel from liquids as *aragetud* 'argento' see § 271. From nasals: *akeneī* from **akneī* 'in fundo' or 'in agone'; *Patanaī* dat. sg. from **Patnaī*; *Līganak-dīkeī* dat. sg. from **Līgnak-d*.

From the material brought forward by Thurneysen Kuhn's *Ztschr.* XXVII 181 f., it is probable that anaptyxis only took place regularly in the combinations *tr*, *kr*, *tl*, *kl*, *tn*, *kn*, if the preceding syllable was short. Cp. e. g. *maatreis* 'matris' *Fuutreis* 'Genetrici' with *patereī* 'patri'; *sakarāklūm* 'sacrum' with *Pukalatūī* (to *pūklo*).

Rem. 3. The Osc. leaden tablet (published by F. Bücheler, Frankf. a. M. 1877) does not contain these inserted vowels, e. g. *sakrim* 'sacrum' against *saxopo* 'sacrum' *sakarater* 'sacratu' elsewhere. Hence it is probable that at first only the weak glide vowel was spoken or after consonants at first only sonant liquids and nasals, thus *aragetud*, *akneī* or *akpneī*. Cp. rem. 1.

Anaptyxis also in Pelign., as in *Alafis* 'Alfius', see § 271.

§ 628. Germanic. Goth. *mīlūks* OHG. *mīlūh* Ags. *meoloc* O.Icel. *mjolk* (fr. **meluk* by so-called 'fracture'), connected with OHG. *melchan* Lith. *mélžu* etc., seem to be an example of primitive Germanic anaptyxis. If it be maintained along with Paul that liquid + explosive in final syllables gave rise to anaptyxis in prim. Germ., then OHG. *hiruz* beside *hirz* might also be understood (cp. § 533). Both words must have been consonantal stems.

Goth. Anaptyxis perhaps in *filigrja-* (Luke XIX, 46 *filegrja-*) n. 'a hiding, hole', to *filhan* 'to hide'. Here comes into consideration the inconvenience of the combination *lgrj*, but at the same time also the possibility of a popular association with *ligrs* 'couch'.

Frequent anaptyxis in West Germ., especially in OHG. With *r+i*, e. g. *herige* 'to the army': Goth. *harja* § 143 p. 129. With cons. + *u*, e. g. *zesawēr zesewēr* 'dexter': Goth. *tathswa*, see § 180 p. 157. With cons. + nas., e. g. *wahsamo* m. 'growth' beside *wahsmo*, see § 215. With liqu. + *h* and other letters, e. g. *ferah* 'soul, life': Goth. *fatrhwa-s* 'world', see § 277.

§ 629. Baltic-Slavonic.

In Lithuanian appear frequent attempts at anaptyxis, which may be represented somewhat in this way: *gr̃iszi* 'to return' *k̃rūma-s* 'shrub', *suk̃nė* 'dress', *žar̃styti* 'to scrape', *mar̃gėlė* (*mergėlė*) 'girl', *bał̃doti* 'to knock', *nėñdrė* 'reed'. In the case of vowel development from liquids and nasals after consonants it is mostly merely a question of the consonants becoming sonants. Observe that the phenomenon has nothing to do with the contrast between slurred and broken accentuation (*nėñdrė*). Cp. Bezzenberger Z. Gesch. d. lit. Spr. 67 f., Brückner Litu-slav. Stud. I 49, Leskien-Brugmann Lit. Volksl. u. Märch. 290.

In Slavonic, anaptyxis was connected with the process of transformation of prim. Slav. *or*, *ol*, *er*, *el*, before consonants, cp. Russ. *porosjá* 'sucking-pig': Lith. *pařsza-s* etc., see § 281.

VOWEL ABSORPTION.

§ 630. Vowel absorption often happens in languages with predominantly expiratory accentuation. The stronger the chief accent of the word, the more easily loss of vowel takes place in syllables which have not the chief accent.

If the absorption happens between consonants in such a way that the word loses one of its syllables, the loss of vowel is called syncope, e. g. Lat. *caldu-s* fr. *calidu-s*. We have besides loss initially before consonants (aphaeresis) and finally after consonants (apocope); in the latter cases it is often difficult to say whether the changes were caused by the relations of accentuation only of the word in question, or whether they were due to relations of sandhi.

If the absorption happens in such a manner that the syllable retains its value as a syllable, which is only possible, if another sound is able to undertake the part as bearer of the syllabic accent, we call the process samprasāraṇa (after the Indian grammarians).

Vowel absorption took place already in prim. Indg. under the influence of the chief accent of following syllables. Syncope : stem **pt-é-* from **pet-é-*, Gr. *πρ-έ-σθαι* 'to fly'. Aphaeresis : **s-té* from **es-té* 'ye are', Skr. *sthá*. Samprasāraṇa : stem **dṛk-é-* from **derk-é-*, Skr. *dṛś-á-t á-dṛś-a-t* 'he saw'. Cp. § 307 ff.

§ 631. Aryan. Samprasāraṇa in Av. acc. sg. *ainim* = Skr. *anyá-m* 'alium', *pouru-m* = Skr. *pūrvá-m* 'primum' etc. Cp. § 125 p. 115, § 159 p. 143.

§ 632. Armenian. *i* and *u* only remained in final syllables between consonants, in other syllables they were dropped. *gtanem* 'I find' from **git-ane-m* : aor. *e-git*. Gen. *dster* 'of a daughter' from **duster* : nom. *dustr*. See §§ 31. 47.

§ 633. Italic. Syncope frequently occurred in all dialects, and it may be conjectured that it was partly completed during the period of the Ital. prim. community, just as the samprasāraṇa (§§ 33. 623 rem. 1) in the transition of **ágro-s* 'field' to **agrs*

(hist. Lat. *ager*), of **ágro-lo-s* (cp. *porculu-s*, *fīliolu-s*) to **agřlo-s* (hist. Lat. *agellu-s*), of **sácro-dō(t)s* to **sacřdō(t)s* (hist. Lat. *sacerdōs*), of **sé-crinō* to **sěcřnō* (hist. Lat. *sēcernō*) etc.

Syncope shows itself in Latin in the syllable immediately following the one which had the chief accent (according to prim. Lat. accentuation, see § 680), if one or more syllables followed this. *reppulī*, *rettulī*, *reccidī* from **rě-pepulī*, **rě-tetulī*, **rě-ccidī*. Correspondingly *dēcidī*, *attigī*, *incurri* from **dě-ccidī*, **át-tetigī*, **in-ccurri*. *cette* from **cě-dite*, *mattu-s* from **máditu-s*, see § 501 rem. 2. *hospes* from **hostpes* **hosti-pes* (§ 81 p. 73). *claudō* from **clávidō*, cp. § 612. *ūndecim* from **ūnu(s)decim*, *quīndecim* from **quīnquedecim*. *prīnceps*, *manceps*, *vīndēmia* from **prīmi-ceps* etc. *surgō* from **súb-regō*, *surpuī* from **súb-rapuī*. *caldu-s*, *soldu-s*, *valdē* beside *calidu-s*, *solidu-s*, *validu-s*. *ardu-s* (Lucil.), *ardeō* beside *aridu-s*. It is questionable whether the spelling should be trusted in the case of certain examples of syncope which are found on inscriptions only, as *decmus vicesma* (acc. sg. fem.), *viglias*.

Syncopation, so far as we know it, was comparatively more frequent in Umbr.-Samn. than in Latin. Umbr. *co-vertu* 'convertito', *an-dendu* 'intendito' (§ 499), *sestu sistu* 'sistito', *umtu* 'unguito' fr. **umptōd* **umbetōd* (§ 502 rem.), *sumtu* 'sumito'; Osc. *factud* 'facito' = Umbr. *feitu* (§ 502), *actud* 'agito'. Umbr. *osatu* 'operato', Osc. *úpsannam* 'operandam'. Umbr. *ambr-* Osc. *amfr-* (Lat. *amb-*) fr. **amfer-*, a transformation of **amfi* after *ander* 'inter' etc.; on the Umbr. form cp. also § 209. Osc. *vincter* 'convincitur', *úttiuf* 'usio, usus' (§ 501 rem. 2), *minstreis* 'minoris' (cp. Lat. *minister*). Pelign. *af-dēd* fr. **af-ddēd* 'abdidit'.

Short vowels were also syncopated in final syllables in this Ital. branch (except some cases, where syncopation was prevented by double consonants, as 3. pl. *furent* 'erunt' cp. Lat. *fuertint*). Nom. sg. Umbr. *pihaz* 'piatus' *fratreks* 'fratricus', Osc. *húrz* 'hortus' *túvtíks* 'tuticus, publicus'. Umbr. Osc. *fust* 'erit' cp. Lat. *fuertit*. Cp. § 655, 5.

§ 634. Old Irish. The syllable, immediately following the one with the chief accent, was the least accented in the

word (as in Ital.), and its vowel became reduced and disappeared, if one or more syllables followed, thus having either syncope or samprasāraṇa. On the retention of the vowel in final syllables see § 613.

Syncope. From the stem **fóllessu-* 'clear, manifest' was formed nom. pl. *fóilsí* with the derivatives fem. *fóilse* 'clearness' and the verb *fóilsigim* 'I show'; the middle syllable of the stem **fóllessu-* had experienced syncope here, while the nom. sg. *fóllus* retained the same syllable, as a syllable, which had become final after the loss of the end syllable. From **béromi*, older **héro-me(s)-i* (1. pl. indic. pres. from *ber-* = Indg. *bher-* 'ferre'), arose *bérme* (-e was caused by the *o* which was dropped; beside this 3. pl. *bérit* from **béront(i)*. *menme*, dat. *menmain*, 'sense' from prim. f. **men-a-men-*, see § 110 p. 104. From the stem **cárēt-* 'friend' (from **cárŕt-*, see § 212 and cp. Gall. *Carantonus* *Carantillus*, Cymr. pl. *ceraint*) pl. dat. *cáirtib* acc. *cáirtea*, but sg. nom. *cáre* *cára* gen. *cárat* dat. *cárit*. Instructive for this process are also the Lat. loan-words, e. g. *péccad* 'peccatum' gen. *pécctho*, *ídál* 'idolum' dat. pl. *ídlaib*.

Samprasāraṇa. Beside nom. sg. *só-nirt* *só-nairt* 'strong, brave' (*nert* 'strength') stood dat. pl. *só-nartaib* compar. *só-nortu* 'stronger' and the derived substantive *só-nirte* *só-nairte* 'strength, firmness'. In the latter forms the syllable *-nert-* had become *-nŕt-*, the timbre of *ŕt* was conditioned by the vowel in the following syllable; *ŕ* then generated a reduced vowel. So also *du-fú-tharcair* 'voluit' goes back in the first place to **du-fú-thŕcair*, this to *-thracair* (cf. *dú-thracht* 'will'). Cp. §§ 66. 298. Here belong also cases like *bria-thar*: the course of development was *-trā*, *-tŕ* (*ŕ* with *a*-timbre), *-tar*, cp. § 623 rem. 1.

Rem. On the *ai* in *só-nairt*, *só-nairte* cp. § 640.

§ 635. Germanic.

Prim. Germanic syncope. **áiz-a-* 'ore, metal' (Goth. *áiza-*, OHG. *ēr*) from **áiz-a-*, cp. Skr. *áyas-*. So probably also **máiz-ō* 'maior' (Goth. *máiza* OHG. *mēro*) in the first instance from **máizō*. Further **ármēið(i)* 'he has compassion on' (Goth. *armáip*

OHG. *armēt*) fr. **irmē-īi-đi* and **friȳōiđ(i)* 'he treats lovingly' (Goth. *frijōþ*) fr. **friȳō-īi-đi*, see § 142. This syncopation, which did not take place if an *i* directly preceded the *īi*, belongs to the later prim. Germ. changes. For it presupposes the new Germanic accentuation (§ 687).

Syncopation in Gothic in final syllables, e. g. *vulfs* 'wolf' fr. prim. Goth. **vulfa-z*. See § 660, 1. Whether forms like *ibns* 'even' *akrs* 'acre' were pronounced as monosyllables or dissyllables (*ibns akrs*), is not clear, cp. §§ 215. 277 (p. 221 foot-note 1). 660, 1. Here may also be placed the transition of *īi* to *i* after consonants, as in *satja* 'I set' from prim. Germ. **satiȳō*, *hairdjōs* nom. pl. 'shepherds' from prim. Germ. **χirdȳiōz* (nom. sg. *hairdeis* from **χirdȳi-z*).

Rem. Some regard this latter process as prim. Germanic. But then the 2. sg. imper. *satei* (Indg. **sodēje*) could not well be explained. For **satiȳi* would certainly also have become **satīi* in prim. Germ., and this would have led to **sati*.

In West Germanic a law of syncope operated which Paul (Paul-Braune's Beitr. VI 144) has formulated in the following manner: — Short vowels were dropped in open syllables 1. after chief accented syllables, if these were long, 2. after a secondary accented syllable following the one with the chief accent, whether this was long or short. The operations of this law are in many cases not evident and clear, because the secondary tone and the deeptone also changed their position in the same word according to logical principles and many levellings took place by analogy. OHG. *hōrta* 'I heard' for **hōrita* = Goth. *káusida*, *branta* 'I burnt' for **brannita* = Goth. *brannida*. OHG. OS. *hērro* 'master', compar. of *hēr* 'high, sublime', from **hériro* (Goth. **háiriza*), OHG. OS. *jungrō* 'younger' from **júngiro*, cp. Goth. *jūhiza*. OHG. *andres* gen. of *ander* 'alius', *unsres* gen. of *unser* 'our'. OHG. *sēula* OS. *sēola* 'soul' = **sēwla*: Goth. *sáivala*. OHG. *īsnīn* 'iron' adj. from *īsan* 'iron'. OS. *mahtigro* from **máhtīgiro* gen. dat. sg. fem. and gen. pl. of *mahtig* 'mighty', cp. Goth. gen. *þizōs*. Forms like OHG. *zimbartā* 'built' (§ 310 rem.) *acchar* 'field' *fogal* 'bird' *ēban* 'even' had experienced samprasāraṇa, see §§ 215. 277. 623 rem. 1.

For the activity of the West Germ. law of syncope in final syllables, see § 661, 2.

§ 636. Baltic-Slavonic. *i* experienced syncopation in unaccented syllables in Lithuanian. I am not in a position to say how far the phenomenon, which can only be proved for a comparatively small number of words, is dialectical and how far it was dependent on various grades of accent-stress or similar factors. Examples: *szulnỹs* beside *szulinỹs* 'well, spring'. *mótna* beside *mótina* 'mother' (also *mótyna*); fut. 2. pl. *árste* beside *ársite*, 1. du. *ársva* beside *ársiva*, from *ariù* 'I plough'.

Vowels were dropped in final syllables by syncope, e. g. pl. *dùkters* 'daughters' fr. **dùkter-es* (Gr. *θυγατέρες*), gen. sg. *dukteřs* fr. **dukter-ēs* (O.Bulg. *dűšter-e*). Cp. § 664.

ĩ and *ũ*, which were reduced vowels already in the prim. Slav. period, disappeared in Slavonic medially in open syllables. In the O.Bulg. monuments e. g. *vsĩ* beside *vřsi* gen. of *vřsĩ* 'vicus', *rekřu* beside *rekűřu* dat. sg. of the part. perf. of *reka* 'I say'. See §§ 36. 52.

PALATALISATION AND LABIALISATION WITH EPENTHESIS.

§ 637. Consonants are often palatalised by sonant and consonant *i*- and *e*-sounds following them, through the mouth-articulation anticipating the *i* or *e*. In like manner *u*- and *o*-sounds cause labialisation.

If any other vowel but an *i* or *u* precedes a consonant or group of consonants thus palatalised or labialised, this often becomes an *i*-, or *u*-diphthong, e. g. *aił'ĩ* from *al'ĩ* (where ' indicates the palatalisation of the *l*). The *i*- or *u*-articulation thus extends still further than the specific articulation of the consonants. This phenomenon is called epenthesis. It occurs in the older phases of the Indg. languages only in the case where postconsonantal *i* or *u* was consonantal. This *ĩ* and *ũ* then disappeared in the preceding consonant, a result of the intensity of the process of palatalisation or labialisation.

Rem. The phenomena, which are denoted as umlaut, fracture, vowel-harmony etc., do not differ materially from epenthesis, e. g. OHG. *nerian* = Goth. *nasjan* § 83, O.Ir. *fer* 'man' fr. **giro-s* § 34, O.Bulg. *toboja* instr. beside *tebe* gen., *tebè* dat. loc. of *ty* 'thou'.

§ 638. Aryan. Simple consonants and *nt* appear palatalised in Avestic before *i*, *ī*, *y*, *ē*, *ñh* (from Ar. *sī*, § 558, 3 p. 415) after *a*, *ā*, *u*, *ū*, *ē*, *o*, *e*, *aē*, *ao*; the palatalisation was indicated by an *i* written before the consonant. *aipi* 'up, on, in' = O.Pers. *apiy* Skr. *āpi*. *barainti* 'they bear' = O.Pers. *bara(n)tiy* Skr. *bhāranti*. *per'sāiti* 3. sg. conj. of *per'sāmi* 'I ask' = O.Pers. *parsātiy* Skr. *prchāti*. *stāidi* 2. sg. imper. of *staomi* 'I praise': Skr. *stu-hi*. *ker'naoiti* 'he makes' = Skr. *kṛ-ñō-ti*. *ber'zaitīm*, acc. sg. fem. of *ber'zant-* 'great, high', = Skr. *bṛhatīm*. *aēibiš* instr. pl., *aēibyō* dat. pl. to *aēm* 'this', = Skr. *ebhīṣ*, *ebhyās*. *daḍ-maiḍē*, 1. pl. mid. to *daḍmi* 'I place', = Skr. *dādh-mahē*. *ber'zaitē*, dat. sg. masc. of *ber'zant-*, = Skr. *bṛhatē*. *aiñhā*, gen. sg. fem. to *aēm*, = Skr. *asyās*.

r appears labialised before *u*, *ū*, *v* after *a*, *ā*, *o*; an *u* written before the *r* marked the labialisation. *auruša-* 'white, glittering' = Skr. *aruśā-*. *dauru* 'wood, spear' = Skr. *dāru*. *pouru* (also written *paouru-*) 'much' = O.Pers. *paru-* Skr. *purú-* (§ 290). *aurvant-* 'quick, strong' = Skr. *ārvant-*.

Rem. The metre proves that diphthongs were not spoken in forms like *aipi pouru*. This mode of writing is to be explained from the fact that the transition from the *a*, *ā* etc. to the *i*- or *u*-position of the palatalised or labialised consonant gave the impression as if an *i* or *u* was heard before the consonant.

Hence it is quite out of the question to speak of a triphthong in forms like *aēibiš* etc.

Cp. the similar mode of writing in Irish, § 640.

In Bartholomae's Handb. d. ir. dial. this *i* and *u*, just as the anaptyctic vowels (§ 624), are placed above the other letters in small type, e. g. *aⁱpi aē^ubyō*, *a^uruśā-*.

§ 639. Greek. Epenthesis of *i* and probably also of *u* took place in the period of the primitive community.

Epenthesis of *i*. The palatalised consonant was single or double: *ν*, *κν*, *πν*, *φν*, *τν*, *δν*, *χμ*, *ρ*, *σ*, *φ*. *φαίνω* 'I show' from **φαν-λω*. *κοινό-ς* 'common' fr. **κον-ιθ-ς* (§ 204). *τεταίνω* 'I make, fabricate' fr. **τεταν-λω*, older **τετηγ-λιω* (§§ 130. 234).

αἰκνο-ν · *δεῖπνον* (Hesych.) fr. **ἀκνιο-ν*, to Skr. *aś-nā-ti* 'eats'. *δεῖπνο-ν* 'meal' fr. **δεπνιο-ν*, rt. *deg-* (§ 444 c). *ἐξ-αίφνης* 'suddenly' fr. **-αφνιᾶς*, cp. *ἄφνω* · *ἐξαιφνης* (Hesych.). *τ* and *δ* disappeared by assimilation before *ν* : *δέσποινα* 'mistress of the house' fr. **-ποτνιχα*, *ῥαίνω* 'I besprinkle' fr. **ῥαδνιω*, see §§ 488. 492. *αἰχμή* 'point of a spear' fr. **ἄχμιᾶ*, probably related to *ἔγχος*, *ἄχ-* = **ἔχχ-*. *μάκαιρα* fr. **μακαυρ-ια*, fem. to *μάκαρ* 'blessed'. *σπαίρω* 'I struggle convulsively' fr. **σπαρ-ιω*, original form **σπρ-ιδ* (§§ 129. 293). Hom. *τοῖο* 'of the' Att. *τοῦ* Dor. *τῷ* fr. **τοισο*, the latter fr. **το-σχο*; Hom. *κλαίω* 'I weep' fr. **κλαιFω*, this fr. **κλαF-ιω*, see § 131.

Rem. Epenthesis of *i* has been wrongly assumed in *κρείττων* 'stronger' beside Ion. *κρέσσων*, prim. Gr. **κρετ-ων*, and in *μεῖζων* 'greater' beside Ion. *μείζων*, prim. Gr. **μεγ-ων*. *ει* had taken the place of *ε* here through analogical association with *χέριον* 'inferior in strength etc.' *ἀμείνων* 'better' *ὀλκείων* 'smaller'. Epenthesis of *i* has also been wrongly sought in *κτείνω* 'I kill', *ἀμείνων*, Hom. *εἰν* 'in', *ῥηθείρω* 'I destroy', *χέριον*, Hom. *ὑπερ* 'over'. In the first instance assimilation took place in these cases (cp. *-ελλ-* from *-ελλ-* in *στελλω*), then 'compensation lengthening'. See §§ 131. 618.

Cypr. *αἰλο-ς* beside Arcad. Att. *ἄλλο-ς* 'alius' is very strange. It stands too isolated to be able to establish with certainty a process of epenthesis for the period of the separate dialects. Cp. Spitzer Lautl. des Arcad. Dial. 34.

Epenthesis of *u* in Greek is entirely denied by some scholars, and it is clear that most of the examples brought forward are certainly or probably false. The following are less doubtful : *ταῦρο-ς* 'bull' beside Gall. *tarvo-s* and K. *ταυρο-ς* = Skr. *gandharvā-s* (*Κένταυρος* for **Κενθauρο-ς*, which is to be presupposed by § 496, through popular association with *ταῦρο-ς*, or *κιντέω*, or both at the same time).

In the transformation, which guttural and dental explosives experienced through a following *ῑ* or *i* in prim. Greek or in the period of the separate dialects, as *-σσ-* fr. *-kῑ-* *-tῑ-*, *-σι-* fr. *-τι-* (§§ 131. 489. 493), it was in all cases a question of palatalisation.

§ 640. Old Irish. Palatalisation and labialisation took place extensively. At the end of chief accented syllables, in

which the original vowel-differences were kept apart, the palatal timbre of the consonant was denoted by placing an *i* before it, and in like manner the labial by an *u* or *o*. We have thus no more to do with 'proper diphthongs or triphthongs here than in Avestic (§ 683). The vowels following the chief accented syllable, which had imparted their timbre to the preceding consonants, were mostly dropped according to the laws for unaccented syllables, so that no trace of their existence was left except in the colouring of the preceding consonants. In Keltic grammars this process is called infection.

For the sake of clearness we give here in small type the vowels which serve only to indicate the timbre of the consonant (cp. § 24 p. 27).

Palatalisation. Gen. *e'ch* 'of a horse' fr. prim. Kelt. **ekyūi*, to nom. *ech*. *su'de* 'seat' fr. **sodīo-m*, rt. *sed-*. Gen. *ma'cc* 'of a son' fr. *maqi* (Ir. Ogam inscript.), to nom. sg. *macc*. *a'le* 'alius', stem **aliō-*. *fa'ith* 'poet' fr. **yati(s)*: Lat. *vatēs*. Acc. *rū'n* 'secret' fr. **rūnin*, to nom. *rūn* fr. **rūnā*. *for-tē's* 'thou wilt help' fr. **tēssi(s)* with *ē* = Indg. *ei*. Cp. §§ 58. 66. 82. 98. 106.

Labialisation. Dat. *ne*rt* fr. **nertu* **nertō*, stem *nerto-* 'strength'. Dat. *e'chu* fr. **echu* **ekyō*, st. *echo-* 'horse'. *ad-ga*r* 'I prohibit' fr. **garu* **garō*. Cp. § 66. 98.

If the vowel of the syllable which had not the chief accent was still present only as an irrational vowel, its colouring was dependent on the timbre of the following consonant, e. g. (*nī*) *épur* (fr. **éd-bur*) beside *at-bi'r* 'dico', both from the same original form, but with different accentuation according to the connexion, so, too, nom. *biad* gen. *blid* ('victus') fr. **biyot(o-m)* **biyot(i)*. See §§ 66. 82. In like manner the irrational vowel, which was developed in Keltic itself from sonant liquid, assumed the quality of the following consonants, e. g. *só-nirte* beside *nért* 'strength'. See § 634.

Where a diphthong is written in unaccented syllables, the second vowel was properly the syllabic vowel and the first really only shows the timbre of the preceding consonant. Hence

we may write *epiur*, which occurs beside *epur*, as *ép'ur*. Correspondingly *só-n^airte* beside *só-nirte*, *rér^aig* 'direxit', dat. *túath^aib* beside *túathib* 'populis' (cp. *mnā'b* from *ben* 'woman'), 1. sg. *cár^aim* beside *cárim* 'I love'. In general this colouring of the consonant is the quality of the vowel which originally followed the consonant, cp. e. g. *ép'ur* with *at-bí^r* and 3. sg. *ad-cón-d^airc* (Gr. *δέδορκε*) with 1. sg. *ad-cón-darc* (Gr. *δέδορκα*).

Rem. If two consonants with different timbre came together through loss of vowel, the second became assimilated (with certain exceptions) to the first, e. g. in **fē'dligetho* 'of persistence' (nom. *fē'dligud*, to *fē'dligim* 'I continue, hold out') a palatal *g* and a dark *th* came together after the loss of the *e* in the last syllable but one. The latter then also became palatal, hence the form *fē'dligth^o*. The timbre of the preceding consonants had influence upon final vowels partly even in O.Irish, but especially in Mid.Irish. E. g. *sú'digth^o* 'of setting' became *sú'digthe*; nom. pl. *gním^ai* 'deeds' (also written *gními* without indication of the timbre of the *m*, nom. sg. *gním*) became *gníma* or *gnímæ* *gníme* (all these spellings exist side by side of each other). — According to Thurneysen. Cp. also § 657 rem.

§ 641. Germanic. Until recently a prim. Germ. epenthesis of *i* was universally assumed in a series of words, as Goth. *háils* OHG. *heil* 'whole', which is said to be related to Skr. *kalya-s* 'healthy, pleasant'; Goth. *hráiva-* (in *hráiva dābō*) OHG. *hrēo* (gen. *hrēwes*) 'corpse', said to be connected with Skr. *krāvya-m* 'raw flesh'. See Scherer Z. Gesch. d. deutsch. Spr.² 74, J. Schmidt Vocal. II 474 ff., Osthoff Kuhn's Ztschr. XXIII 427 f. I am by no means convinced of the correctness of this assumption; on *háils* cp. § 439.

§ 642. Baltic-Slavonic. Palatalisation exists largely.

On the palatalisation of consonants in Lithuanian see §§ 26. 147. 280.

Original *r_i*, *l_i*, *n_i* appear in O.Bulg. as palatalised *r*, *l*, *n*; *i* had been absorbed in the preceding consonant. Palatalisation was also the first stage in the development of *k_i* *ke* to *č* *če*, of *ch_i* *che* to *š* *še* etc. See § 147.

LOSS OF SYLLABLE BY DISSIMILATION.

§ 643. When two medial syllables with the same or similar initial sound follow each other, one of the two is often

lost. When a person reproduces sounds from impressions on the memory and repeats their order in speaking, the syllables with the same initial sounds run into one another, and thus after the production of the initial sound of the first syllable he at once passes over to the production of the sounds following the second, e. g. Gr. τέτραχμον 'four drachmae' = τετρ[άδρ]αχμον. Such hurrying over one part of the sounds of the body of a word does not always become chronic and universal, hence the frequent co-existence of the full and the shortened form in languages closely related together.

In languages with preponderating expiratory accentuation it was probably always syllables which had not the chief accent which were affected by this act of dissimilation.

Aryan. Vedic *irádhyai* inf. 'to try to gain' = **iradh[a-dh]-yái*, cp. 3. pl. mid. *iradhanta*. Avestic. *dūraōša-* 'shining far' = **dūr[a-r]aoša-*. *amer'tāt-* beside *amer'ta-tāt-* 'immortality'. *maidīdirya-*, name of a feast, fr. **maidī[a-y]dirya-* (*maidīya-* 'medius', *yār* 'year').

Greek. ἀμφορέυ-ς beside ἀμφι-φορέύς 'jar with two handles'. ἡμέδιμνο-ν beside ἡμι-μέδιμνον 'half a bushel'. κωμωδιόσκαλο-ς beside κωμωδο-διόσκαλος 'comic poet'. λιπυρίᾱ 'intermittant fever' = *λιπ[ο-π]υρίᾱ. στόμαργο-ς 'talkative' = *στομ[ο-μ]αργο-ς or *στομ[α-μ]αργο-ς. ὀπισθίναρ 'back of the hand' = *ὀπισθ[ο-θ]-εναρ. κέντωρ 'goader' = *κεντ[η-τ]ωρ from κεντέω. θάρσυνο-ς 'confident' fr. *θαρσ[ο-σ]υνο-ς.

Italic. Latin. *sēmodiu-s* beside *sēmi-modiu-s*. *sēmēstri-s* 'semi-monthly' = **sēm[i-m]ēstris*. *trucīdare* fr. **truc[i-c]īdare*. *antestārī* = **ant[e-t]estārī*. *lūculentatem* acc. beside *lūculenti-tatem*. *dēbilitare* = *dēbili-t[at]-āre*. *hērēditariu-s* = **hērēdi-t[at]-āriu-s*. *calamitōsu-s* = **calami-t[at]-ōsus*. *dentiō* = **dent[ī-t]iō*. *nūtrīx* = **natr[ī-tr]īx*. Umbrian *suront* beside *suḡuront* 'item'.

Rem. 1. From what has been said above it is probable that forms like *dēbilitāmus dēbilitāvissem*, *nūtrīcis nūtrīcāmus*, *dentiōnis* were already created in Latin at the time **dēbilitātō* (1. sg.), **nūtrītrīx*, **dentiūtō* were still spoken. The shortening of the latter forms was due to the analogy of the first through a *dēbilitō* being created to *dēbilitāmus* etc.

Rem. 2. The later stages of development of Latin also show many phenomena which belong here, as Italian *avamo* fr. *avevamo*, *cavalleggiari* fr. *cavalli leggieri*, French *neté* fr. *netteté*. See Car. Michaëlis Stud. zur roman. Wortschöpfung 18.

Keltic. I do not know anything belonging here from Irish¹⁾. In Gallic *Leucamulus* = **Leuc[o-c]amulu-s* (cp. *Leucimāra* etc. and *Camulus*), *Clutamus* = **Clut[o-t]amus* from *Cluto*- and the not unfrequent element *-tumu-s*. See Esser Beitr. zur gallo-kelt. Namenkunde I p. 46.

Germanic. Goth. *avistr* n., OHG. *ewist* m. *awista* f. 'sheep fold' = **av[i-v]istr*, **ew[i-w]ist* **aw[i-w]ista*, the second part to OHG. *wist* 'stay, dwelling place'. In like manner **navistr* = **nav[i-v]istr* 'abode of the dead' which is to be deduced from Goth. *ga-navistrōn* 'bury'.

Possibly also Goth. *ainōhun* 'ullum' = **ain[an]ō-hun*. The spelling *áinnō-hun* is due to an attempt of the writer to take a middle course between the form actually spoken by him and the form dictated to him by his grammatical feeling.

Baltic-Slavonic. Lith. *akū'ta-s* beside *akūtū'ta-s* 'awny' (from *akū'ta-s* 'awn'). Loc. sg. fem. *gerōjoje* = **geroj[e-j]oje*, to nom. *geró-ji*, definite form of *gerà* 'bona'. O.Bulg. fem. gen. *dobryje* = **dobry-j[ej]e*, dat. *dobré-ji* = **dobrē-j[ej]i*, instr. *dobroja* = **dobroj[a-j]a* and this = **dobroja-j[ej]a*, to nom. *dobra-ja*, definite form of *dobra* 'bona'. With the last named double shortening cp. Lat. *voluntāriu-s* = **volunt[at]āriu-s* and this = **volunt[i-t]āt-āriu-s*.

SANDHI (SATZPHONETIK).

§ 644. Words, united together so as to form a single thought, are mostly also spoken in a connected manner, so that the whole sentence, or at least a member of it consisting of several words, forms a complete phonetic unity. The sounds of the

1) The first consonant was dropped in Irish in such cases, and the vowels, thus brought together, were contracted: e. g. **arob-ró-nenasc* became *arob-róinasc* 'I have betrothed you' (*nascim* 'I bind'), where *oi* is to be read as a pure diphthong (Thurneysen Rev. Celt. VI 323 f.).

word are dependent on the varying position of the word in the sentence. It makes a difference whether a word with this or that set of sounds precedes or follows another, whether the word begins or ends the sentence, whether it has the chief accent of the sentence or not. As a word has generally life in connected speech only, it develops itself phonetically also in connexion, and those variations of position are often at the same time the active cause which produces the change. Thus e. g. in Skr. *tát phálam* 'this fruit' and *tád dátrám* 'this gift' the difference of the final sound of the first word was caused by the difference of the initial sound of the second word, in *śúcīṣ tvám* 'splendidus tu' and *śubhrás tvám* 'nitidus tu' the difference of the initial sound of the second word was occasioned by that of the final sound of the preceding word. The shortening of prim. Balt. *-a* in the Lith. nom. sg. fem. *gerà* 'bona' was brought about by the position at the end of a sentence (absolute finality, position in pause), and the reduction of *ρρ-* = Indg. *sr-* to *ρ-* in Gr. *ῥεῖ* 'flows' (Skr. *srávati*, cp. *ῥρεῖ* 'flowed' Skr. *ásravat*) by the position at the beginning of the sentence (absolute initiality). OHG. *mo* 'to him' *nan* 'him' beside *imo inan* arose from the fact that they were used unaccented (enclitically) in the sentence as a whole; when preceded by the chief accent they became subject to the law of syncope (§ 635).

Those changes, which absolutely initial and final sounds underwent and which were caused by such positions of the word, may generally be separated as forming a special category of phonology.

But the sound-affections, which a word suffered through its connexion with a preceding or following word, are not to be separated from those, which were caused through the connexion of the sounds and syllables of the same word as a whole. In many cases no one even thinks of making such a separation. Thus no one treats under the laws of sandhi the Att. *η* = prim. Gr. *ā* in *τιμή* or in *ἥγον*, which is of the same nature as that in *μητέρες*. But e. g. in the acc. pl. like *νόμῳ*, *νόμοις* (in several dialects equal to Att. *νόμῳ*, *νόμοις*), in

Att. *καὶ* Dor. *κήνι* = *καὶ ἐπὶ*, in *τὸλ λόγον* = *τὸν λόγον*, *ἐρ* *Ῥόδῳ* = *ἐν Ῥόδῳ*, *κὰν νόμον* = *κατ νόμον*, in Hom. *ὅττι* (Att. *ὅτι*) = **ὅδ τι* (§ 363) etc. we can also only speak of such laws as generally held good for the sound-combinations in question. *νύμφᾱς* arose from *νύμφᾱνς* in combinations like *νύμφανςκαλάνς* according to the same law as that by which **κενστός* became *κεστός* (§ 204 p. 171). *καὶ* *κήνι* from **κα(λ)επι* like *τίμᾱτε* *τίμῃτε* from **τιμα(λ)ετε* (§ 603). As regards *τὸλ λόγον* etc. and *ὅττι*, such assimilations, it is true, did not take place at the same time in the body of a word — we take the term word here in its narrowest sense, thus we do not regard compounds like *πάλλενκο-ς παρρησίᾱ* as one word —, but it was only because the sound-groups in question did not occur in the body of the word at the time when the change took place¹⁾. The latter is just as much a secondary consideration for the sound-change itself, as it is immaterial for the changes which take place in a word when isolated, if the sound-group in question at the time of the change occurred in the isolated word only as e. g. in the transition of *-κλ-* to *-σσ-* or of *-γκ-* to *-ζ-* in Greek.

The following circumstance also does not occasion an exceptional condition for the laws of sandhi in question. After the ending of a word has assumed a different shape caused by the varying nature of the following initial sound and the activity of the respective sound-law or of the respective sound-laws has become extinct, the different forms are often used promiscuously, irrespective of the conditions by which the difference was brought about, or at least one of the different forms goes beyond its original sphere. Thus in Greek *νύμφᾱς* came to be used also before vowels while *νύμφᾱς*, which had arisen in combinations like *νύμφανςκαίτάνς* (cp. *πᾶσα* from *πάνσα*) and when absolutely final, appeared before consonants²⁾. The same holds good with regard

1) On account of *κὰν νόμον* observe that the syllabic division *κατ|νόμον* was in opposition e. g. to *φά|ττη*.

2) On the newly found inscription of Gortyn the old phonetic division still shows itself in preferring especially the article form *τόνς* before vowels and the sister form *τός* before consonants.

to initial sounds. Double forms like Gr. *στέγος* : *τέγος* 'roof' were originally dependent on the varying form of the end of the preceding word (§ 589, 3). But both forms then became generalised in use. Now this fluctuation did not for the most part stop here. One of the different forms gained the mastery and entirely suppressed the other or the others. Thus in the Attic dialect the accusative forms *νόμφας*, *τάς*, *νόμους*, *τούς* came to be the only forms in use, *νόμφας*, *τάς*, *νόμος*, *τός* became extinct¹⁾; in Latin *steg-* entirely gave way to *teg-* (*tegō toga*). It is here everywhere merely a question of the effects of analogy, which followed after the regular change had taken place, and the case is essentially the same as if e. g. in OHG. *jungro* had arisen by syncopation beside *bezziro* etc. and *jungiro* had then been formed after the latter and similar forms (§ 635). The latter new formation is parallel to the younger *τόνς παῖδας* (*τούς παῖδας*) instead of the regular *τόςπαῖδας*.

If, in sandhi-changes, transformations of finals through the following initials are much more frequent than transformations of initials through the preceding finals, it fully corresponds also to what we may observe with regard to the changes in the body of a word, namely that transforming operations are far more frequent in a regressive direction (anticipations) than those in a progressive direction.

In the so-called laws of finals and initials it is not merely a question of the last or the first sound in the body of the word, but often also of the medial sounds. The important part is that the cause of transformation lay outside the body of the word, in the first case in the following, in the second case in the preceding word. The most striking examples

1) The existence side by side of *εἰς* and *ἔς* (older *ἐνς* and *ἐς*, originally *ἐνς* only) is the same as *τάς* and *τάς*, *τούς* and *τός*. If in Attic the fluctuation between *εἰς* and *ἔς* continued long after the victory of *τάς* *τούς* was decided (see the author Ber. d. sächs. Ges. der Wiss. 1883 p. 186 f.), this is to be explained from the fact that the accusatives with compensation lengthening were the regular, often used pause-forms, while the preposition was generally pronounced only in close connexion with following words and *εἰς* only occurred rarely as pause-form.

are the Skr. combinations like *prá hanyatē*, *agnēr ávena*, where *ṇ* took the place of *n* through the influence of the *r* in the preceding word (§ 648, 3). The expressions laws of finals and initials are thus too limited. We retain them however in default of a more appropriate short name. —

On the basis of the above explanation we ought, in the discussion of sound change, to separate from all other changes, those which happened in the beginning and end of a sentence and were caused by this position of the sounds. With the present state of our science, this is unfortunately impossible in an exposition of the history of sounds, which everywhere starts from the prim. Indg. sounds: the cases are too numerous, in which we do not know whether the word has obtained its present form when absolutely initial or final respectively or conditionally so i. e. in the juxta-position with the sounds of other words. Every thing, which preceded in the prehistoric periods of the separate developments, is known to us by induction only. But processes certainly happened even then, quite as complicated as those we can so often observe in the later phases of language: conflict of the pause-forms and the forms at the beginning of the sentence with the medial forms and of the latter with one another, utter loss, without leaving any trace, of one or several of the different forms which had arisen phonetically, etc. We are mostly not in a position to reconstruct these prehistoric processes in their course with any certainty. And even where we work on the basis of historic records we are often badly off from the fact that the written exposition, as regards the formation of the final and initial parts of words, is generally still less a faithful picture of the living speech than as regards the medial syllables, since they had arisen by sound-laws which operated independently of the connexion in the sentence. In writing one generally recalled to mind the isolated word as an independent whole and either overlooked the sandhi-operations altogether or only imperfectly paid regard to them. In this point, it is true, the exposition of the Sanskrit forms a brilliant exception. But what in the

other languages is too little, is too much here. The sandhi-system of the Hindoos is not free from various pedantic niceties and exaggerated generalisations; it is quite inconceivable that the naive speech, uninfluenced by grammatical theorising should always have moved in the track, which the grammarians prescribe, and which became the normal for the written exposition of the language. The fettered language of the Vedas already furnishes the proof that the sandhi-system of the classical Sanskrit is not a thing of natural growth. —

In face of the overwhelming difficulties we shall therefore not undertake the theoretical division mentioned above. But it seemed to me necessary to point out here at least the aim, which a more searching investigation of details should have specially in view in the future even more than hitherto.

Rem. Cp. among others Schuchardt Romania III 1 ff., Sweet Transact. of the Philolog. soc., London 1875—76 p. 470 ff., Curtius Stud. X 205 ff., Sievers Paul-Braune's Beitr. V 61 ff. Phonet. 3 205 ff., Paul Princip, der Sprachgesch. p. 100 ff. and elsewhere, Neumann Ztschr. f. roman. Phil. VIII 243 ff., Holthausen Die Soester Mundart, 1886, § 44 f. §§ 204—222.

Prim. Indg. period.

§ 645. Only a few changes can be established with probability in conditionally final and initial sounds.

Finally.

1. *-ōu* became *-ō* before certain consonants in the nom. acc. du. of *o*-stems, say **dyō sūnā* 'two sons' beside **dyōu ēkuōu* 'two horses'. This is shown by the fact that the Vedic has mostly *-ā*, rarely *-āu*, before consonants, and *-au* rather more frequently than *-ā* before vowels.

In classical Sanskrit the forms in *-āu* came to be the only ones in use. Conversely in the European languages the forms in *-ō* almost entirely supplanted those in *-ōu*: Gr. *δύ-δεκα*, *ἑπτα*, Lat. *duo*, O.Ir. *dā*, Lith. *dù* from **dyā*, *geri* from **gerā* (§§ 184. 664, 3), O.Bulg. *dva*, *vlūka*. *-ōu* was retained in O.Ir. *dau dō* (older *dāu*) 'two' and Goth. *ahtāu* 'eight' (§ 85). Cp. Meringer Kuhn's Ztschr. XXVIII 217 ff.

From this it may be assumed that $-ōu$ once interchanged with $-ō$ in the loc. sg. in $-ōu$ also as $*sūnōu = \text{Skr. } sūnāu$ etc. (§ 85).

Compare Indg. $*gōm$ acc. sg. 'bullock', which probably arose from $*gōu-m$, § 188.

It is more doubtful whether $-ēi$ interchanged with $-ē$ in a similar manner. Vedic loc. sg. *agnā* of *agnī*-š 'fire' suggests the conjecture that there existed in prim. Indg. a loc. sg. in $-ē$, which had arisen from $-ēi$. The latter form is said to be represented by Goth. *anstāi* (stem *ansti*-). Cp. the accidence.

Compare the hypothesis according to which Indg. $*rēs$ 'res' arose from $*rēi-s$, § 150.

Rem. 1. That nominatives like Gr. *Πυθώ* and Skr. *sākhā* (pl. *sākhāy-as*) represent an Indg. $-ō$ from $-ōi$, as has been maintained, seems to me very doubtful.

2. $-i$ and $-u$ were pronounced as consonants before sonants. E. g. $*prōti$ beside $*prōti$ 'against' (Skr. *prāty* and *prāti*, Gr. *πρός* and *πρоти*, cp. *πρόσω* from $*πρωτιω$), the former e. g. in Skr. *praty-abharam* = Gr. *προς-εφερον*. $*upēri$ beside $*upēri$ 'over' (Skr. *upāry* and *upāri*, Gr. Hom. *ὑπείρ* and $*ὑπέρι$, cp. Hom. *εἰν* and *ἐνι*, § 131 p. 119). $*mēdhu$ and $*mēdhu$ 'honey', the latter e. g. in Skr. *mādhv asti* 'mel est'. Cp. §§ 122. 156.

In like manner $-u$ and $-m$ probably interchanged, e. g. acc. sg. $*bhrātor-u$ (Gr. *φράτορα*) and $*bhrātor-m$ (Goth. *brōpar*). Cp. § 192. 231 rem.

Rem. 2. On the accusative forms like $*diēm$ (Skr. *dyām*) see § 188. If the conjecture given there is right, there existed between $*diēm$ and $*nāu$ (Hom. *νά* Lat. *nāvem*) the same relation as between $*bhrātor-m$ and $*bhrātor-u$.

3. Voiceless explosives and spirants became voiced before voiced explosives and spirant, say $*ēdōt+bhrātraḥ = *ēdōt+bhrātraḥ$ 'he gave to the brother' (Skr. *ādāt bhrātrē*); $*tāzgiās = *tās+giās$ 'these sinews' (cp. Skr. *tā jyāh*). Cp. $*-bd-$ from $*-pd-$, $*dndbhis = *dnt+bhis$ § 469, 2, $*zdhi = *s+dhi$ § 589, 1. Conversely voiced explosives and spirants became voiceless before voiceless explosives and spirants, say $*uit^{*}tōtplū = *uit^{*}tōd+plū$ 'know thou (let him know) much' (Skr. *vittāt purū*),

**tótisijēt* = **tód + sijēt* 'that may be' (Skr. *tát siyāt*). Cp. **juqtó-* = **jug + tó-*, **petsú* = **ped + sú*, § 469, 1.

Sanskrit and Greek especially point to such assimilations.

4. Bremer (Paul-Braune's Beitr. XI 38 f.) assigns it to this also, that the nom. endings sg. masc. fem. of *n-* and *r-* stems sometimes have *-n* and *-r*, sometimes not, e. g. Gr. *ἄκμων*, *πατήρ*, but Skr. *dśmā*, *pitā* (see § 92). The duality was formerly frequently explained by assuming that the forms without *-n* and *-r* were once the only ones in use and that the final consonant was transferred from the other cases. In the *n*-stems one might also imagine that the forms with *-ōn-* without gradation like Gr. *ὄψαρχος* Goth. *raþjōn* O.Bulg. *poljan*- (§§ 219 extr. 311. 585, 3) had originally the nominative with *-n*, the others without *-n* and that then intermixture took place. The uncertainty however prevents anything being here definitely arrived at.

Initially.

1. *s-* disappeared before consonants after *-s*, perhaps also after other consonants, hence the double forms like *steg-* and *teg-* 'cover'. See § 589, 3.

3. Double forms like **siēm* and **sijēm* 'sim' **duō* and **duyō* **mrijetāi* and **mrijetāi* 'moritur' were due to a varying construction of the preceding syllable. See § 120 p. 112 § 153 p. 138 f.

3. Indg. **toḯ* from **tyoḯ*? See § 187.

Aryan.

§ 646. Prim. Aryan.

Finally. 1. Nasals adjusted themselves to the organ of the following consonants, so that e. g. *-n* and *-m* became *-ŋ* before *k-*, and *-ñ* before *c-*.

2. The ending *-am* attained complete supremacy in the acc. sg. of most consonant stems, the origin of which must apparently be explained from sandhi relations. Analogously *-am* in preterites like *ās-am* 'eram'. See §§ 231 rem. 645 p. 489.

3. The explosives and spirants, which had become voiced before initial voiced explosives and spirants, remained voiced;

correspondingly those, which had become voiceless before initial voiceless sounds, remained voiceless (§ 645 finals 3). *t* and *d* occurred most frequently finally. The aspirates, from of old rare finally, may have then lost the aspiration in this position. *-z* stood beside *-s*, *-ž* beside *-š*; *-ž* and *-š* = Indg. *-g* and *-k* were rare (§ 396).

-as and *-ās*, when absolutely final, passed into *-ah* and *-āh* (Skr.) or groups similar to these, and it seems that these forms, introduced also into the position before voiced explosives and spirants and before vowels, became here *-ō* and *-ā* already in prim. Aryan. See § 556, 3.

Initially. 1. *kt-* became (when absolutely initial?) *t-* : Skr. *tūrya-* Av. *tūrya-* 'quartus' from **ktur-*, cp. Av. *a-xtūrya-* 'four times repeated'. See § 471.

2. *s-* became *š-* after *-i*, *-u* etc. (§ 556, 1), whence Skr. *š-*. Hence such combinations as *hī śāh*, *hī śma*, *divī śtha*, *nā śthirām*.

Rem. Since we are not justified in assuming that the transition of *s* to *š* (§) was still active in the Sanskrit separate development, this phenomenon of sandhi must be referred back to the prim. Aryan period. It is immaterial whether in individual cases we have to deal with a prim. Ar. word-combination or with one which had first come into being in Sanskrit itself. In the latter case it is a question of imitation of older models.

§ 647. Sanskrit. Finals.

1. The *-z*, which arose from prim. Ar. *-aḡ* when absolutely final and before consonants, was also introduced if the next word began with a sonant, e. g. *-z a-* for regular *-ay a-*, cp. Av. *zastay-a* O.Pers. *dastay-a* 'into the hand', loc. sg. + *a* 'towards a thing'. Before *a-*, which for its part disappeared, *-z* remained, before other sonants it was shortened to *-a*. *vānē 'smīn* from *vānē asmīn* loc. 'in this forest'. *vāna āsīt* from *vānē āsīt* 'he was in the forest'. This loss of *a-* was in its first beginnings in the Vedic period.

The *-ō* which had taken the place of *-as* (§ 646) was treated in like manner. *anyō 'nyām* 'one to the other'. *rāmā uvāca* 'Rama spoke'.

-*ay* became -*a* before sonants. *striyá adadāt* 'he gave to the woman'.

2. The assimilation of the nasals to following consonants (§ 646), remained e. g. *tān kavīm* 'this sage', *tān dēvām* 'this god'. -*m* passed into the so-called 'Anusvāra' before sibilants, *h* and *r*, e. g. *tā sīhām* 'this lion' (cp. § 199 rem. 1).

3. -*r* became -*h* when absolutely final. Voc. *mātāh* 'mother' = Av. *mātarē* Gr. *μητρει*. 3. pl. perf. *ās-ūh* = Av. *ānāh-arē* from Ar. *as-* 'be' (§ 290).

The *r*, which had first become final in Sanskrit (by 7), also underwent this change. *ākāh* = *ūkar* 'thou madest, he made', when 2. sg. arose from **a-kar-š*, when 3. sg. from **a-kar-t*.

4. Absolutely final explosives and spirants were pronounced voiceless only, hence here e. g. *tāt* 'this' from **ta-d*, Indg. **tó-d*.

The law, inherited from the pre-Aryan period, that explosives and spirants were pronounced voiced before voiced and voiceless before voiceless explosives and spirants (§ 645 finals 3), was followed by an analogical innovation. They said *tāt phālam* 'this fruit', *tād dātrām* 'this gift' (prim. f. **tód*) and *ābharat phālam*, *ābharad dātrām* (prim. f. **ēbheret* 'he brought'), but *tād ānnam* ('food'), *tād vāstram* ('dress'), *tād mādhu* ('honey') opposed to **ābharat ānnam*, — *vāstram*, — *mādhu*. The latter state was levelled out and *ābharad ānnam* etc. introduced.

ābharad ānnam for regular **ābharat ānnam* after *ābharad dātrām* and *tād ānnam* may be compared with *śagmā-* 'powerful, helpful', for regular **śakmā-* after *śagdhi* and *tigmā-*, see § 472 rem.

-*t* remained in the old combination *bhārat-u* 'let him bring' (injunctive *bhārat* + particle *u*), because it was felt as a single word. See Osthoff Z. Gesch. des Perf. 42.

5. -*t c-* became -*cc-*, as *ādācca* 'dabatque', -*t ś-* became -*ch-* (-*cch-*), as *ādāchatām* 'dabat centum'. Cp. §§ 352. 355. Cp. also § 557, 2 on *tānchātrān* acc. 'these enemies'.

6. The endings -*as* and -*ās* have been treated in § 556, 3. 646. 647, 1.

-*h* appears in pausa for the *ś* which arose from Indg. *s* prim. Ar. *ś* after *i*- and *u*-vowels (§ 556, 1), e. g. *āvīh* 'sheep', *sūnūh* 'son'. It is uncertain whether the transition to *h* was phonetically developed or whether it is a question of analogy after *áśvaḥ* = *áśpas* etc. -*ś* was retained in Vedic before *p*- and *k*-, e. g. *dyáuś pitā* (= Ζεὺς πατήρ), but the pause-form in -*h* forced its way in also before these initial sounds, just as there still appears the older ending -*as* (e. g. *yás pátiḥ* 'qui dominus') in Vedic before *p*- and *k*-, but beside this already also -*ah*. -*ś* too is still Vedic before *t*-, where *t*- was pronounced cerebral (§ 352), e. g. *śúcīś tvám* 'splendidus tu'. But beside this also *śúcīs tvám*, a new formation after the analogy of -*as t*-.

-*h* for -*s* and -*ś* also where these did not become final until after the loss of a following consonant (7.), e. g. *āh* 'he was' = **as(t)*, *ájāih* 'he overcame' = **ajāiś(t)*; cp. *ákah* = **akart* above 3. Also -*t* = -*śt*, e. g. 3. sg. injunct. aor. *nát* = **naś-t* from *naś-* 'to attain' (cp. 3. sg. *váṣti* 'he is willing' from *vaś-*, § 399).

Original -*is*, -*us* had become -*iž*, -*už* in prim. Aryan before voiced explosives and spirants, e. g. **patiž dadāti* 'the master gives'. -*ž* (= Skr. -*ṣ*) already at an early period, perhaps in the Aryan prim. community (cp. Av. *duž-ita-* 'difficult of access' *duž-vacah-* 'speaking badly'), came to stand also before vowels, liquids and nasals through generalisation by analogy and here passed into -*r* in Sanskrit, e. g. *śrīr iyám* 'this splendour' from **śrīž*. This -*r* then came to be used by analogy also before voiced explosives and spirants, e. g. *pátir dadāti* 'the master gives', *sūnúr dadāti* 'the son gives', *pátir bharati* 'the master brings': the regular forms had been **pāti dadāti*, **sūnū dadāti* (cp. *dū-dāś-* 'impious', § 591) and **pātiḍ bharati* (cp. *dviḍbhīṣ* *ibid.*). *r* was even also transferred to the ending -*as* in Vedic, as *áśvar* 'horse' *śrutár* 'renowned'.

7. Of two or more final consonants (except *i* and *u* as the second components of diphthongs before consonants) the first only was preserved. *ābharan* 'they brought' from **a-bhara-nt*. *ákar* 'he made' from **a-kar-t*: Av. *cor^ep* (prim. Ar. **car-t*, Indg.

**ger-t*). *ās* 'he was' from **as-t*. *á-jāiṣ* 'he overcame' from **a-jāi-ṣ-t* : Av. *cōišť* 'he made known' from *caēṣ-*. *āp* 'water' from **ap-s* : Av. *āfš*. *dēvā-tāt* 'divine service' from **-tāt-s* : Av. *a-mer-ta-tas* 'immortality'. *dīk* 'region of the sky' from **dīkṣ*, prim. f. **dīk-s* (§ 401 rem. 2). *vāk* 'speech' from **vākṣ* : Av. *vāxš* Lat. *vōx*, Indg. **uōq-s* (§ 556, 1).

ābhār 'he brought' from **a-bhār-ṣ-t* (*s*-aorist). Nom. sg. *prān* 'turned forwards' from **prāṇk-ṣ*. Nom. sg. *tudán* 'tundens' from **tudánt-s*.

-*nn* appears instead of -*n* after short vowels, as *ābharann*, *tudánn*.

The simplification of final consonant groups was older than the origin of short nasal vowels from short vowel + nasal before *s*. This is shown by the gen. sg. *dán* (*dánn*) from **dáns*, 2. sg. *ágan* (*ágann*) from **a-gans*. See § 199.

If a long vowel preceded the nasal + *s*, -*n* stood in only absolute finality, in conditioned finality a long nasal vowel was pronounced and -*s* had the same form as after non-nasalised long vowels. *áśvān* 'equos' in pausa, but *áśvās t-*, *áśvāṣ c-*, *áśvāḥ p-*, *áśvā a-*. *sūnūn* 'filios' in pausa, but *sūnūḥ p-*, *sūnūr a-*. *vidvān* 'knowing' in pause, but *vidvās t-* etc. *átān* 'he stretched' (*s*-aorist, from **a-tān-s(-t)*), 1. sg. *átāṣ-am*) in pausa, but *átā a-*.

Rem. From this it seems to follow that *n*, after long vowels before -*s* not ending the sentence, had become with the preceding vowel a nasal vowel earlier than elsewhere. Of course in this question there comes into consideration the fact that the long vowels in the accusative endings -*ān* -*ūn* -*īn* have not yet been satisfactorily explained (the last attempt at an explanation by Hanssen in Kuhn's Ztschr. XXVII 615), and that the nom. *vidvān* was a new formation for **vidvās* (cp. Av. *vidvā*, Gr. *ιδώς*). Thus the ending long vowel + *n* + *s* is not proved as old inherited in any of the cases here.

§ 648. Sanskrit. Initials.

1. On the loss of -*a* after -*ē*, -*ō*, see § 647, 1.
2. -*ch-* (-*cch-*) fr. -*t ś-*, see § 647, 5.
3. *r* also caused cerebralisation of a following *n*, if the two sounds belonged to different words. In Vedic *pári nas*,

vār nāma, prā hanyatē, indra ēnam, agnēr āvena. Cp. *bhāra-māna-s* in § 199 and the phonetic explanation of its origin given there.

4. -š changed *t-* into *t-*, as *śuciš tvām.* Cp. §§ 352. 647, 6.

Rem. On *hi śāh* etc. see § 646 initials 2.

§ 649. Iranian. Finals.

1. In late Avestic final *-ā, -ī, -u* were shortened in polysyllabic words. Nom. sg. *haēna* 'army': Skr. *sēnā*. Nom. sg. *brāta* 'brother': Skr. *bhrātā*. Nom. du. *pupra* 'the two sons': Skr. *putrā*. Nom. sg. *ber'zaiti* 'alta': Skr. *bṛhatī*. Nom. du. *paiti* 'the two masters': Skr. *pātī*. *mainyu* 'the two spirits': Skr. *manyū*. On the other hand e. g. *z'mā* instr. to *zā* 'earth': Skr. *jmd.*

All final vowels are written as long in Gāpā, not only *haēnā mainyū*, but also e. g. *barā* 2. sg. imper. = Skr. *bhāra* Gr. *φῆρε*, *ásti* 3. sg. indic. = Skr. *ásti* Gr. *ἔστι*. It is probably rightly assumed that these longs are due to a later transformation on the part of redactors and that they were pronounced short — perhaps with a few exceptions — in the same manner as elsewhere, at the time of the origin of the hymns. See Bartholomae *Die Gāpā's* p. 67 ff., *Handbuch* p. 3.

In Old Persian the deviations from the quantity, which is to be expected by the prim. Ar. sound-laws, are likewise only of a graphic nature, e. g. 3. sg. *akūta* 'he made himself': Skr. *ākṛta*; *abara(n)ta*: Skr. *ābharanta* Gr. *ἐφάροντο*; *amīy* 'I am': Skr. *āsmi* Gr. *εἰμι*; *pātūv* 'let him protect': Skr. *pātu*. Cp. § 21.

2. Late Av. *-ē* fr. *-ia -īā*, as *yē-hē* = Skr. *yā-sya*. See § 125 p. 115.

Av. *-ē* from *-ai*, as *aspē* = Skr. *āśvē*. See §§ 62 rem. 78. 94.

3. Av. *-ā* (written *-a, -an, -am*) from *-ām -ān*, as *pwāq* *pwam* = Skr. *tvām*. See § 200.

4. Av. *-r'* fr. *-r*, as *antar'* = O.Pers. *a(n)tar* Skr. *antár*. See §§ 260. 624. The anaptyctic vowel arose before initial consonants, at the same time perhaps in absolute finality.

5. Final combinations of consonants were mostly permitted. Cp. the Av. forms *cor^hp*, *cōišť*, *āfš*, *vāxs* in § 647, 7. Exceptions under 6.

6. Prim. Ar. *-t* and *-d* after vowels (also anaptyctic) fell together in Av. in *-p*. This sound or a similar one, in any case a consonantal element, was also spoken in O.Pers., since *-a* appears for prim. Ar. *-at* and *-ad*. If the sound *-a* had ended the word, this vocalic finality would have been expressed by the addition of the *a*-sign (in the transcription *-ā*). See § 21 rem. 3. sg. Av. *abara^p* O.Pers. *abara* 'he brought' : Skr. *ābharat*. Av. *ci^p* O.Pers. *ciy*, indefinite particle : Skr. *cid*, Lat. *quid*.

-t appears unchanged in Av. in *-st* = prim. Ar. *-tst* prim. Indg. *-tstt*, as *hīšast*, and in *-št* = prim. Ar. *-št* prim. Indg. *-st*, as *cōišť*. On the other hand *-s* from prim. Ar. prim. Indg. *-st*, as *ās*. See § 474 rem. 2.

-t was dropped after *n* in prim. Iran.: 3. pl. Av. *abaren* O.Pers. *abara* : Skr. *ābharan ābharann*, Indg. **ēbheront*, rt. *bher-* 'bear'.

7. On Av. *-as* *-ō* O.Pers. *-a* = prim. Ar. *-as* see §§ 556, 3. 558, 4. 646 finals 3.

Ar. *-as* appears in Av. as *-ā*: nom. pl. fem. *yā* 'quae' = Skr. *yās*, 2. sg. conj. *barā* 'feras' = Skr. *bhāras*. Beside this *-a* (from older *-ā*, see 1): nom. pl. *aspa* 'equi' = Skr. *āśvās*. *-ā* probably corresponds to Skr. *-āh*, and *-a* to Skr. *-ā*. The ending *-ās-ca* (*ca* 'and'), as in *yās-ca*, seems to be a transformation of regular **-ās-ca* after *-ā*. Only *-ā* occurs in O.Pers., e. g. nom. pl. *martiyā* 'men', which may also correspond to Av. *-ā* and *-a*. Cp. § 556, 3.

Opposed to Skr. acc. pl. *tān* (§ 647, 7) and Gr. *τόρος* Goth. *pans* stands in Av. *tā* (also written *tān*, *tām*).

Prim. Ar. *-š* = Indg. *-s* (§ 556, 1) was, as it seems, the rule in every connexion in both Iranian languages. Av. *aži-š* 'dragon' : Skr. *āhi-š*; *mainyu-š* 'spirit' : Skr. *manyú-š*. O.Pers. *fravarti-š* Phraortes, *kūrū-š* Cyrus. Sanskrit relations of sandhi (see 647, 6), which certainly partly represent prim. Ar. differences

of finals, show that the Iran. *-š* did not stand regularly in all word-combinations.

§ 650. Iranian. Initials.

1. The development of anaptyctic vowels in Av., as *'rista-*, and the metathesis of *vr-*, connected with it, as **rvāta-*, may regularly have taken place partly in absolute initiality and partly after certain consonants. See §§ 157. 260. 624.

2. So also the transition of prim. Ar. *sm-* (through the intermediate stage *hm-*) to *m-*, in Av. *mahi* 'sumus' = Skr. *smāsi* etc. See § 558, 3.

Armenian.

§ 651. Finals.

1. The vowels in the originally final syllables of polysyllabic words disappeared, whether they themselves, or consonants following them, ended the word. *em* 'I am': Skr. *ásmi*. *mardoy* 'of man': Skr. *mytāsya*. Nom. *dustr* 'daughter' fr. **dustir*, older **dustēr*: Gr. *θυγάτηρ*. *astl* 'star': Gr. *ἀστήρ*. Nom. acc. *mard* 'man': Skr. *mytá-s*, *mytá-m*. Nom. *akn* 'eye' (gen. *akan*): cp. Gr. *τέκτων*. *haur* 'of a father': Gr. *πατρός*. *dster* 'of a daughter': *θυγατέρος*. Acc. *marts* (*mards*) 'men' from **mardo-ns*: Gr. Cret. *ρόμο-νς*.

Monosyllables retained the vowel. *mi* 'lest': Gr. *μή*. Nom. *šun* 'dog' from **kūōn* (§ 87), but *akn* (see above). Acc. *eris* 'three' from **ris*, **trins* = Goth. *prins*, but *sirts* from **sirtins* from stem *sirti-* 'heart'.

2. *-m* disappeared: acc. *mard* = Skr. *mytá-m* (§ 202). *-n* remained: nom. *šun*, *akn*.

Rem. Therefore *tasn* 'ten' cannot be derived regularly from Indg. **dek̑m* (Skr. *dāśa* Lat. *decem*). We must start, as in the case of Goth. *taihun*, from **dek̑m̐*: the labial nasal became dental before *-t*, **tasant* became *tasn*. Or did the word receive its *-n* from *inn* 'nine' = **en̑n̐*, as Lat. *novem* conversely took the place of **noven* after *decem*?

3. *-s* disappeared after vowels: nom. *mard* = Skr. *mytá-s*; gen. *haur* = Gr. *πατρός*. It remained, if a nasal preceded it: acc. *marts* (*mards*) = Indg. **myto-ns* (cp. § 202).

Initials. *e*, *o* or *a* was prefixed to an initial liquid, as *erek* 'evening' = Skr. *rújas*. See §§ 263. 625.

Greek.

§ 652. Prim. Greek finals.

1. Short vowels often suffered elision before vowels. The elision, e. g., in *ἀπ'αὐτοῦ*, *οἱ δ'ἄλλοι* etc. may be regarded as prim. Greek. See § 603 p. 457.

2. The contrast between *πρὸτι* and **πρῶτι* (*πρός*), *ἐνι* and **ἐνι* (*εἰν*) was inherited from the pre-Greek period. See § 645 final 2.

If a word ended in an *ι*-diphthong and the following word began with a sonant, *ι* was dropped as elsewhere (§ 130), e. g. *κα(ι) ἐπὶ*, *κα(ι) ἀγαθός* = Att. *καπὶ*, *καγαθός*.

3. *-m* became *-n*, as *τό-ν* = Skr. *tá-m*. See § 204 p. 171 f. This occurred in absolute finality and also before dentals. Cp. § 653 rem. 2.

4. *-r* became *-ar* in absolute finality, as *οὐθαρ* 'udder' from **οῦδhr*. See § 285.

5. All explosives were dropped. 3. sg. *ἔφερε*: Skr. *ábharat*. 3. pl. *ἔγνον* from **ἐγνώ-ντ* (cp. § 611): cp. Lat. *era-nt*. Dor. *ἦς* 'erat': Skr. Ved. *ás*, Indg. **ēs-t*. *τό*: Skr. *tá-d*. *τί*: Lat. *qui-d*. Voc. *γύραι* from **γύραικ*, cp. acc. *γυναικ-α*. 3. sg. *ῆ* 'spoke' from **ῆκ-τ* (to Skr. perf. *áh-a*), with which goes the new formation 1. sg. *ῆν*.

The exceptions as Hom. *ὅττι* from **σφόδ τι*, ὅππως from **σφόδ πως*, *ἐκ*, where the consonant remained on account of the close connexion, show that this change belonged entirely or especially to the absolute finality.

6. *-s* and *-z* (e. g. **τίς δέ* 'but who') had come over from the pre-Greek period. See § 645. final 3.

-ss became *-s* before consonants and when absolutely final. *μῦς* 'mouse' *μής* 'month' from **mūs-s* **mēns-s*. Dor. *πώς* 'foot' Att. *πότις* 'youth' from **pōss* **neuo-tāss*, older **pōts* **-tāts* (§ 490).

§ 653. Finals in the separate dialects.

1. The prim. Gr. elision (§ 652, 1) was extended further.

With this went contraction (crasis), as Att. *τᾶλλα* from *τὰ ἄλλα*, to which was joined aphaeresis, a phenomenon differing from the former rather in the written representation than in reality, as Att. *ἐμοῦ ᾽πάκουσον*.

The tendency to remove hiatus, was intentional in the literary language and in some works it is avoided altogether.

Rem. 1. The so-called *ν ἐφελκυστικόν* has not arisen from an attempt to get rid of hiatus. Its use in antiquity was not at all regulated according to the theory of later grammarians. The consonant rather had an original etymological value in some forms and then became further extended by analogy. See the author's Gr. Gr. § 64 rem. and the literature quoted there and G. Meyer Gr. Gr. ² 297 ff.

The contractions in cases like Att. *καὶ* Dor. *κη̃* from *καὶ ἐπὶ* belonged to the period of the separate dialects (§ 652, 2).

2. The loss of the *-χ* in *-ημ -ωι -αι (-ῃ -ω -α)* as in Att. *τιθη̃ τιμη̃ ἵππω χῶρα* was effected in the same manner as medially. See § 132.

3. *-ν* (= Indg. *-n* and *-m*) was assimilated to following guttural and labial sounds, e. g. Att. *γῆγ καὶ, τῆμ πόλιν, μισθοῦντομι μὲν*. The omission of the nasal in writing in Cyp., e. g. *να-ο-το-τε* = *ναὸ(ν) τό(ν)δε*, permits our assuming that here, as medially, a nasal vowel only was spoken. Cp. § 205.

Rem. 2. *χθών* and *χιών*, already discussed in § 204 p. 172, show that Indg. final *-m* was not retained in *τῶμ, τῆμ* (cp. Skr. *tā-m, tã-m*) before labials. If Indg. *-m* had been preserved before labials to any extent in prim. Greek, *χθονός, χιόνος* would not then have taken the place of **χθου-ος; *χιου-ος*. *-ν* = Indg. *-m* had been once generalised in prim. Greek.

4. *-ρ* became assimilated to *δ-* in Cret. (Gortyn), as *ἀνῆδ δῖν̃* = *ἀνῆρ δῖν̃*.

5. The tendency, inherited from the pre-Greek period, to level explosives with different form of articulation (tenuis and media) operated further. *ἐγ Βυζαντίον* Att., *ἐγ Βακχιδᾶν* Corinth. *ἐγβάλλω* Paros, *ἐγ δίκης* Att., *ἐγ δακτύλων* Att. (*ἐγ* = *ἐξ*, cp. *ἐκ ποδῶν* Att.), *ἐγδικάζω* Chios, *καδ δέ* Hom., *κάββαλον* Hom.

Assimilation of the position of articulation: Hom. *καπ πεδιόν* from *κατ π.*, *κάππεσον* from **κάτ-πεσον* Thess. *ἀτ τᾶς* from *ἀπ τᾶς*, Hom. *κάββαλον* from **κάδ-βαλον*, Cret. *ἐδδίηται* from **ἐγδίηται*.

6. *-s* and *-z* (§ 652, 6) became assimilated in Cret. (Gortyn) to *θ*, *δ*-, *λ*-, as *τὰθ θυγατέρας* (cp. *πρόθθα* from *πρόσθα*, § 566), *νίέδ δέ, πατρὸς δόντος* (cp. the verbal ending *-άδδω* from **-αζδω*? § 493 rem.), *τοῖλ λείονσι*.

-z passed into *-ρ* in El., e. g. *τίρ* = *τίς*, *τᾶρ* = *τᾶς*, *πεπολιτενκώρ* = *πεπολιτενκώς*. *-s* beside this existed in the older periods. But the old regular spheres of use of *-ρ* and *-ς* were even then no longer kept apart (e. g. *γᾶρ τᾶρ* . . . instead of *γᾶς τᾶρ* . . .) and the forms in *-ς* were gradually driven out by those in *-ρ*.

-ρ from *-z* also in the dialects of Laconia and Thera.

Cp. Thess. *Θιορδότειος* beside Ion. etc. *Θεόδοτος* i. e. *Θεόζδοτος* and *Διόζδοτος*, § 593.

§ 654. Initials in prim. Greek and later.

1. It was remarked in § 626 that doublets like *μόρορνῦμι* and *μόργρνῦμι* (Skr. *marj-*) arose from differences of sandhi.

2. *γ*-, *ξ*-, *ζ* always appear as *ἀρ*-, *ὀρ*- (before consonants), *ὀλ*- (before consonants), as *ἄρκτο-ς* 'bear', *ὀρθό-ς* 'upright'. This is undoubtedly the form for absolute initials. On the other hand the particle *ὀὰ* = Lith. *ir* Indg. **r* arose after consonants. Cp. §§ 292. 306.

3. On differences like *στέγος* and *τέγος* 'roof' from rt. *steg-*, *σμερδαλίο-ς* 'terrible' (OHG. *smërzo*) and *μειδῆσαι* 'to smile' (Skr. *smáyatē*), which mostly seem to go back to the pre-Greek period, see §§ 563, 6. 589, 3.

4. Where double consonants had arisen by assimilation, they were simplified when absolutely initial, and probably also after consonants. *ῥεῖ* = *srávati*, beside *ῥρει* (§ 565). *νίφα* beside *ἀγά-ννιφο-ς* from rt. *sneigh-* (§ 565). *μειδῆσαι* beside *φιλο-μμειδής* (see 3). *σεῦε* beside *ῥ-σσευε* : Skr. *cyav-* (§ 489). The geminated consonants still appear in : Hom. *τε ρρήξεν* *M.* 198, as *ῥ-ρρεξα*; *ὅτε σσεύατο* *P* 463, as *ῥ-σσευε ῥ-σσυτο*; Ionic *όποιά σσα*, Att.

ὁποῖά ττα, πηρίκα ττα from *qīa, cp. Megar. σά 'quae?' (§ 489). Cp. also Thess. inscript. οἱ τολῖαρχοι from οἱ πτ. (as ἀρχι-τολῖαρχέντος, Λεττίναιος, see § 333).

Rem. In ὁποῖά ττα, σμικρά ττα etc. was developed the feeling for a causal dependence of the ττα on preceding -α, so that these combinations were felt as ὅποι' ἄττα, σμικρ' ἄττα. The result was that ἄττα came to be used independently also. Thus in Plato τέτταρα ἐν αὐτοῖς ἄττα. In like manner arose the postposition οὐνεκα = ἔνεκα 'on account of' in combinations like ἐκείνουνεκα, where ἔνεκα had been fused by crasis with final -ου. See Wackernagel in Kuhn's Ztschr. XXVIII 109 ff.

5. τραπέζα '(four legged) table' in absolute initiality from *πυραπέζα, Indg. *qtur-. See § 490.

Italic.

§ 655. Finals. Owing to the scantiness of the Umbrian-Samnitic materials, handed down to us, it remains doubtful at what period certain processes of sandhi took place in Latin.

1. Prim. Ital. -i became in Lat. partly -e, and was partly dropped. The former: *mare, animale, sedile, ante*, loc. *rūre* see § 33. The latter: *aut* : Osc. *avti avt* Umbr. *ute ote* 'aut'. *tot* : cp. *toti-dem. et* : Gr. ἔτι 'still', again'. *per-* (*per-idōneu-s*, *per-māgnu-s*) : Gr. πέρι. *animal, exemplar*, etc. It is I believe no mere accident that the latter form of the final occurs especially in such words as seldom or never ended the sentence.

Prim. Ital. -e was in Latin partly retained and partly dropped. The former: *eque, legite, quinque, neque, neve*. The latter: *neq, neu, quī-n, sati-n, dīc dūc* beside older *dīce dūce*. Umbr. *pum-pe* 'quomque' and *nei-p ne-p* 'neque, neve, non', voc. *Tefre*. Osc. *nei-p ne-p* 'neque, neve'.

Prim. Italic. -o and -a became -e in Latin. *sequere* : Gr. ἔπειο (§ 81). *pede instr.* : Gr. πεδά (§ 97 p. 91). Loss of -o : Lat. *ap-eriō* (§ 499) and so *ab eō* etc., Pelign. *af-ded* 'abdidit' : Gr. ἄπο; -o was retained in Lat. *po-situs*, where the already prim. Indg. loss of the initial *a-* preserved the -o from disappearing.

Prim. Italic -i, -e, -o, -a had thus fallen together in -e in Latin. This was connected with the position in unaccented

syllables. Loss of the vowel occurred regularly before vowels, partly perhaps also by syncope (before consonants), see §§ 633. 679.

Rem. 1. It is doubtful whether the elision of vowels, which became the rule in Lat. verse (e. g. Lucret. I 234 *átque ante ácta*, four syllables), is directly connected historically with the loss before vowels. In any case however the custom of the poets, which extended itself to long final vowels also (e. g. *spatio átque* in the same verse, four syllables), was founded on a stopping of hiatus in the ordinary language of the people.

2. The Romans began to shorten *-ō -ā* already in the pre-literary period. First of all in iambic words. The rest followed gradually, for the most part probably by form-transference. *duo* : Gr. *δύω*. *ego* : Gr. *ἐγώ*. *modo* instr. sg. : cp. Lith. *gerù*, *gerù-ju*. *fero* : Gr. *φέρω*. *homo* : cp. Skr. *ásmā*. *equa* : Skr. *áśvā*. *juga* : Skr. Ved. *yugā*. In the poets the forms with long vowel still occur beside those with the shortened, and it is pretty easy to follow in them the course of development, which the shortening took; e. g. *ambō* beside *ambō* came into existence later than *duō*. Cp. Stadelmann De quantitate vocalium Latinas voces terminantium, Lucerne 1884¹⁾. Especially instructive are the numerals as *trīgintā septuagintā*, old nom. acc. pl. neut. *-ā* remained here, because these words were early isolated from the connexion in thought with *juga bona* etc. (cp. *trīgintā virī*). They prove that the shortening of neuters with non-iambic ending, *armenta* etc., was due to the analogy of *juga* etc.

Contemporaneous shortening of *-ē* in locatives from *i*-stems as *peregre*, if it is true that these with Skr. loc. as *agnā* go back to Indg. *-ē*. See p. 489 and the accidence.

-ā -ē, which arose by contraction, also underwent shortening in iambic word-forms. In the dramatic poets imper. *roga puta mone habe* etc., originally **-ā-īe *-ē-īe*. But no generalisation took place here (not imper. *plantā* etc.). In the classical period it was again (with few exceptions) *rogā* etc.; the long

1) With reference to this treatise and other expositions of the vowel shortening in question, it does not seem superfluous to point out that *equā* cannot be the old vocative form (cp. Gr. *ῥύμῃ*) nor *duō* identical with Gr. *δύο*. By 1. we should expect **eque* and **due*, like *pede* and *sequere*.

vowels were thus restored again after the analogy of non-iambic forms like *planta*.

The relations of quantity cannot for the most part be controlled in Umbrian-Samnitic. We saw in § 105 that *-a* in the nom. sg. fem. and nom. acc. pl. neut. had become an *o*-vowel in Umbr. and Oscan. Since this cannot be separated from the *o* in Umbr. *pihos* 'piatus', and this *o* was certainly long, it must be assumed that the final vowel was still long *-a* at the time the weakening took place.

3. From *-ōi*, *-āi* Lat. *-ō*, *-ā*, e. g. dat. *equō*, *Matūta*. See § 136.

Lat. loc. *ūsū*, Umbr. *manuv-e* 'in manu' contained Indg. *-ōu*, if they were locatives like Skr. *sūnāu*. See § 85.

4. Long vowels were shortened in Latin before *-t*, *-m*, *-r*, *-l*. This change belongs to the archaic period, in which poets still often have long vowels. *siet siem* beside *siēs*. *amet amem* beside *amēs amēris*. *pater* : Gr. *πατήρ*. *erat eram* beside *erās*. *loquar* beside *loquātur*. *equam* : Skr. *áśvām*. *exemplar animal* beside *exemplāre animāle* (cp. 1.). *clāmor* beside *clāmōris*. *vīderim vīderit*, *sim sit* beside *vīderīmus, sīmus*. The long vowels remained in monosyllabic words in *-r*, *-l* : *fūr sōl*.

Osc. *paam* acc. sg. 'quam'.

5. In Umbr.-Samn. short vowels were syncopated in final syllables ending in a consonant, as Umbr. *pihaz* 'piatus', Osc. *hūrz hortus*. See § 633. The contrast between Umbr. *Ikuvin* 'Iguvinus' Osc. *Pūmpaiians* 'Pompeianus' on the one hand and Umbr. *abrof* 'apros' Osc. *feihúss* 'fines', whose endings arose from **-ons* (9.), on the other, proves that the former syncope was late; the *-ns* in the nom. sg. must have been restored again through the influence of form-system.

On the samprasāraṇa in Lat. Umbr. *ager* from prim. Ital. **agrs* see 9 p. 506.

6. Final *-m* and *-n* may have been assimilated even in prim. Ital. to succeeding consonants produced by different organs e. g. **k^hom k^he* from **k^hom k^he* (Lat. *quonque*, Umbr. *pumpe*). See § 207. On *-m* in Lat. see § 208 p. 176. *-n*

was assimilated in the same language, as inscript. *im bello* etc. shows. On *-m* and *-n* in Umbr.-Samn. see § 209.

On Umbr. *-r* see § 270.

7. *-t*, so far as it was not dropped, appears in Italic as *-t* and *-d*. Lat. *siet sient, erat erant*; on archaic inscriptions *feced fecid* etc. Osc. *fusid* 'esset' (cf. Lat. conj. perf. *fuert*), *pútíad* 'possit'. I am not satisfied with any of the various explanations of this duality (Bugge Kuhn's *Ztschr.* XXII 385 f., Osthoff *Rhein. Mus.* XXXVI 487 f., Stadelmann *De quantitate* etc. p. 64 sq., Danielsson in Pauli's *Altit. Stud.* III 148).

-t disappeared in Latin after *c, s, r*. *lac* fr. **lact*; the form *lact* in Varro was formed anew after the analogy of the other cases. *os* fr. **ost*, cp. Av. gen. sg. *ast-ō* 'of a bone'. *sem-per tantis-per* etc. : Osc. *petiro-pert* 'quater', Gr. Pamphyl. *περ-έδωκε*; was the cpf. **perti*?

8. *-d* remained in Lat. after short vowels : *id, quid, quod, illud, ad*. It disappeared after long vowels in the archaic period, from which many forms with *-d* are handed down to us : abl. *equō(d) equā(d) mē(d) tē(d)*, imper. *estō(d)*.

Umbr. *asam-a asam-ař* 'ad aram' (*ř* from *d*, § 369 p. 280). It was dropped everywhere after long vowels : abl. *pihaclu* 'piaculo', imper. *sumtu* 'sumito'.

Osc. *píd* Pelign. *pid* 'quid', Osc. *púd* *pod* 'quod', abl. *dolud* 'dolo' *tovtad* 'civitate' *akrid* 'acri', imper. *estud* 'esto' *actud* 'agito'.

-d disappeared in Lat. or in prim. Italic after *r* : Lat. *cor* fr. **cord*, cp. *cord-is*.

9. *-s* after explosives remained in absolute finality in all dialects. Lat. *ex, vōx, au-spex, pēs novitās* from **pēs *novitats*, *agēns* from **agents*, *con-cors* from **-corts*, *puls* from **pults*, *nox* from **nocts*, *abs* i. e. *aps*. Umbr. *fratreks fratrexs* 'fratricus', *pihaz* 'piatus'. Osc. *meddiss meddis* 'meddix' from **-diks*, *húrz* 'hortus', *az* 'ad' i. e. *ad+s*.

-nts in Umbr. forms an exception : *zeřef* 'sedens', like *abrof* 'apros' (see below).

For conditional finality cp. Lat. *ē* Umbr. *eh* (i. e. *ē*) from *eks*, § 570.

-s after vowels. Lat. *equo-s*, *genus*. Umbr. *puntes* 'pontes'. Osc. *scriptas* pl. femin. 'scriptae', *Lúvkanateís* gen. 'Lucanatis'.

-s is often wanting on Lat. archaic inscriptions, e. g. *Cornelio* = *Cornēlius*, *locu* = *locus*, *mino* = *minus*. The archaic poets (as also Cicero in his juvenile poems) allowed the sound sometimes to make strong position, sometimes not, e. g. in dactylic hexameters *imāgini(s) fórmam, fluctibu(s) mándet*. The writers of the classical period restored -s in all cases. It is frequently left out again on the inscriptions of the later imperial period. The conclusion drawn from these facts, that -s after vowels had throughout a weak articulation already several centuries B. C. which was retained in the vulgar language, while the full articulation was restored in the classical period in the language of cultured persons is unsatisfactory from the very fact that the sound has remained in some Romance developments down to modern times. It ought rather to be assumed that just as *s* (like *z*) disappeared medially before nasals, *l* and *d* (§§ 570, 594), it was also dropped before these consonants at the end of words; they said e. g. nom. *manu laeva* gen. *manū laevae* (like *corpulentu-s* from **corpozlento-s*) beside *manus parva* etc.; the different forms were then used promiscuously, especially by the poets, to whom these sentence-doublets, in the case of final syllables with short vowel, afforded considerable ease; grammatical reflexion, regard for clearness of word-form, and regard to Greek (*equos*: ἵππος, *genus*: γένος etc.) procured complete supremacy for the forms in -s in the literary language of the classical period.

Just as *s* had become *z* medially between vowels (§ 569), -*z* may also have arisen regularly finally before vowels. The -*r*, which is to be expected as its continuation, exists only in *dir-imo* and similar words.

In Umbr. nom. pl. *Ikuvinus* *Ikuvinu* and *Iiovinur* 'Iguvini', Indg. -*ōs*; the last form presupposes -*z*. What the sandhi processes were which gave rise to these differences remains

undetermined; it must be taken into account that *s* beside the voiceless sound perhaps represented the voiced sound also.

Rem. 2. The question of postvocalic *-s* in the Italic languages requires a thorough investigation, in which the next following initial sound in the texts handed down to us must carefully be taken into account. Our exposition given above is especially intended to suggest such an investigation.

-s after liquids had disappeared throughout the Italic branch. Cp. the nom. sg. Lat. *par*, *fār*, *sōl*, *ager* (st. *agro-*), *ācer* (st. *ācri-*), *famul* (st. *famulo-*), Umbr. *ager* 'ager' (gen. *agre*), *katel* 'catulus' (acc. *katlu*), Osc. *Frunter* 'Frunter', *famel*, Mutl. 'Mutilus'. We may assume that the changes **agros* **agrs* **agers* *ager* and **akris* **akrs* **akers* *aker* were effected in the period of the prim. Ital. community. Cp. Lat. *sacerdōs* from **sācro-dōts* and *sēcernō* from **sēcrinō*. See § 33. 623 rem. 1. 633.

-s after nasals. Lat. *aprōs* Umbr. *abrof* fr. prim. Ital. **apro-ns* (cp. Goth. *vulfa-ns* 'wolves'), Osc. *feihúss* 'fines'. See §§ 208. 209.

§ 656. Initials.

1. In the vowel elision mentioned in § 655, 1, the *e-* was lost in *est*, which was attached enclitically: *itast*, *sitast* = *ita est*, *sita est*. These forms being felt as *ita'st*, *sita'st*, there were formed after them also *autemst*, *situst*, *situmst*, etc.

2. *q̄-*, *ḡ-* appear in Latin as *an-*, *ar-*, as *antae*, *arduos*. See §§ 253. 306. They were the forms of absolute initiality.

3. *f* = Indg. *bh dh gh* maintained itself in Lat. only initially, as *ferō fūmu-s formu-s*. See § 509. It was the form of absolute initiality.

4. Lat. *stlīs slīs līs* etc., see §§ 503. 570.

Old Irish.¹

§ 657. Finals.

1. Final short vowels were dropped in polysyllabic words,

1) With my insufficient knowledge of the sound-laws of the Britannic dialects I am not in a position everywhere to keep apart properly what

except when *i* preceded. This loss was not effected until after the vowels had imparted their timbre (palatal, labial) to the preceding consonants (§ 640), and thus the quality of the dropped vowels is mostly still recognisable.

Voc. *a maicc* 'son' from **makye*: cp. Gr. ἄδελφε. Imper. sg. *beir* 'bear' from **bere*: Gr. φέρε. Imper. *berid* 'bear ye' from **berete*: Gr. φέρετε. *ad-cón-dairc* 'conspexit' from *(de-)dorce: Gr. δίδορκε. *berid* 'he bears' from **bereti*: O.Bulg. *beretŭ*. *is* 'is' from **esti*: Gr. ἔστι. *berit* 'they bear' from **beronti* (cp. § 212): Gr. Dor. φέροντι. Dat. (loc.) *athir* 'patri' from *(p)ater-i or *(p)atr-i (cp. *briathar* from **brētra*, § 623 rem. 1): Gr. πατέρι πατρί. Cp. also *imb-* 'around, about': Gall. *ambi-* Gr. ἀμφί.

Pres. secund. 3. sg. *no-bered no-berad* 'ferebat, ferret' from **bereto*: Gr. φέρετο Skr. *bhárata*. Also the 3. pl. pres. *do-berat*, which cannot be explained from **beronti*, may be middle: Gr. φέροντο; for another explanation see § 82 p. 76. Loss of Indg. -a in the voc. *a thuath* 'folk'? cp. Gr. ῥέμψα. *suth* n. 'fetus' fr. **sutu*: Gr. μέθυ.

2. Similarly long vowels disappeared, except when *i* preceded.

Nom. acc. du. *sūil* 'eyes' from **sūli*: cp. Skr. *pátī* 'masters'.
Nom. sg. fem. *Brigit* from **brigentī*: Skr. *bṛhatī* femin. 'high'.

as-biur 'I bring forward, say' from **-berō*: Gr. φέρω. Dat. (instr.) sg. *fiur* (to nom. *fer* 'man') from **uirō*: Lith. *gerù gerù'-ju*. Nom. *tuath* 'folk' from **tōtā*, **teytā*: Goth. *piuda*. Nom. acc. pl. neut. *trī chēt* 'three hundreds' from **centā*: Skr. Ved. *trī śatā*.

Nom. sg. fem. **brētra* 'word' became **brētŕ*, then *briathar*. Gen. **cētlī*, dat. **cētlō* (stem *cētlo-* 'song' from **can-tlo-*, pl. nom. *cēlla* dat. *cēllaib*) became *cētil*, *cētul* through an intermediate stage with *l*, which in the former case had an *i-* and in the latter an *u*-timbre. See §§ 623 rem. 1. 634.

is to be ascribed to the special Gaelic and what to the prim. Keltic period of development.

3. After *í* (*ii*) short vowels united with this and formed sonantal vowels (cp. pp. 124. 125) and long vowels were shortened.

Voc. *a chēli* (st. *cēlijo*- 'companion') beside *a maicc*.

no rāidiu 'I speak' beside *as-biur*. Dat. instr. *ailiu*, *cēliu* beside *fiur*. *air-mitiu* 'honour': Lat. *mentiō*.

Rem. *-iu* further became *-i*. Hence e. g. dat. *duini* beside *duiniu* 'homini'. This phenomenon is parallel with the transition of *gním^a* to *gníma* (§ 640 rem.).

4. *í*-diphthongs became monophthongic and were then treated like long vowels. Nom. pl. *eich* 'equi' from **ekyī* **ekyoi*, see § 82. Nom. acc. du. fem. *tuaith* from **tōtī* **teytai*, see § 98; cp. *dī* 'two' = Skr. *dvē*. Dat. sg. *tuaith* from **tōtī* and older probably **teytāi*; Gr. *-α¹*).

5. If a consonant followed a short final vowel in polysyllabic words, the vowel disappeared, where it was not preceded by *í* and had not become long by 'compensation lengthening'.

fer 'man' from **yiro-s*. Nom. acc. neutr. *tech* 'house' fr. **tegos*; Gr. *στέγος*. Gen. *bethad* 'of life' from **biyo-tūt-os*; cp. Gr. *ποδ-ός*. *athir* 'fathers' from **(p)ater-es*; Gr. *πατέρ-ες*. *faith* 'poet' from **yāti-s*; cp. Lat. *hosti-s*. *fid* 'tree' from **yidu-s*; OHG. *witu*.

fer n-(aile) 'virum' (alium) from **yiron*; Lat. *viru-m*. *sūil n-(aile)* 'oculum (alium)' *from **sūlin*; cp. Lat. *siti-m*. *fid n-(aile)* 'arborem (aliam)' from **yidu-n*; cp. Lat. *fructu-m*. *deich m-(bai)* 'ten (cows)' from **decen*, Indg. **dekm̥*. *ainm n-(abstīl)* 'nomen (apostoli)' from **an-men*, Indg. **-m̥y*.

no beir 'fert' from **beret*; Gr. *φέρε*; Skr. *bhārat*.

In *eter etir* 'between' = Lat. *inter* **-ter* had in the first instance become **-t̥y*. Cp. *criathar* under 2.

A short vowel combined with preceding *í* (*ii*) and formed a sonantal vowel (cp. 3.). Nom. *aile cēle* acc. *aile n- cēle n-* beside nom. *fer* acc. *fer n-*.

1) If this explanation of the dat. sg. *tuaith* be right, the dat. *fiur cēliu*, which we brought under 2. and 3. as instr. in original *-ō*, cannot at the same time be, as has been believed, the Indg. dat. form in *-ōi* (Gr. *-ω*). For it is not probable that *-ōi* should have become *-ō*, while *-āi* became *-ai* *-ī*.

6. If a consonant (except *-m*, see 7.) still followed an original long final vowel, the vowel was shortened. So, too, were long vowels which had arisen by 'compensation lengthening'.

athir 'father': Gr. *πατήρ*. *siur* 'sister' from **sui(s)ur*: Lat. *soror*, older *sorōr*.

Nom. *tuatha* 'peoples' from **tōtās* **teytās*: Goth. *þiudōs*, Osc. *scriptas*; cp. *mnā* 'women' = Skr. Ved. *gnās*. Voc. *a firu* 'viri' from **uirōs*: Goth. *vairōs*, Osc. *Núvlanús*. Compar. *laigiú* 'smaller' from **lag-iōs*, see § 139.

Conj. *-air-ema* 'suscipiat' from **emāt*: Lat. *emat*. Indic. *no chara* 'he loves' from **carāt*, originally **-a-īe-t*; conj. *ro-chara* from **carāt*, orig. **-a-īā-t*.

Long vowels by compensation lengthening. Acc. pl. *firu* 'men' *fathi* 'poets' *cruthu* 'forms, shapes' from **-ōs* **-īs* **-ūs*, orig. **-o-ns* **-i-ns* **-u-ns*. Nom. *care cara* 'friend' (gen. *carat* dat. *carit*) from **carent-s*. *fiche* 'twenty' (gen. *fichet* dat. *fichit*) from **uicent-s*, orig. stem-form **uiknt-* or **uikmt-*. *tricha* 'thirty' (gen. *trichat* dat. *trichait trichit*) from **tricont-s*. Cp. § 212.

7. Long vowels seem to have been early shortened before nasals (cp. Latin § 655, 4) and then to have been treated by 5. Conj. *do-ber* 'afferam, dem' from **berām*: Lat. *feram* O.Bulg. *bera*, cpf. **bherā-m*. Gen. *ech n-(aile)* 'equorum (aliorum)' from **ekyōn* (Gr. *ἑκκων*) or from **ekyon* (cp. O.Bulg. *vlūkū*)? cp. the accidence. —

All the vowel shortenings and loss of vowels discussed in 1.—7., were caused by the development of the strongly expiratory accent at the beginning of words. Cp. 634. 684. 685.

8. *-m* became *-n* in prim. Keltic. This was often retained at the beginning of the following word, before vowel or media. Examples under 5. and 7. and in § 211.

9. *-t* was dropped. *no beir* from **beret*. *for-tē s-fut*. 'he will help' (1. pl. *for-tiasam*) from **-stēkst* i. e. **steigh+s+t*. Did the dental in original *-nt* remain? See § 76.

10. *-s* was dropped everywhere.

Vowel + *s*. *fer* 'man' from **uiro-s* (5.). *tuatha* 'peoples' from **tōtās*, *mnā* 'women' from **bnās* (6.).

-ns. *firu* 'viros' from **uiron-s* (6.). *mī* 'month' (gen. *mīs*) from **mēns* : Gr. *μῆς*.

-ts -nts. *beothu* 'life' (gen. *bethad*) from **tāt-s*, *care cara* 'friend' from **carents* (6.).

-ks. *rī* 'king' (gen. *rīg*) from **rīss* **rīks* : Gall. -*rīx*, Lat. *rēx*. *ail* 'rock, stone' (gen. *ailech* dat. *ailig*) from **aileks*.

§ 658. Initials.

1. Just as *t* and *c* became *p* (written *th*) and *χ* (*ch*) in the body of a word after vowels (§ 514), spirants also arose initially after words ending in a vowel. This affection took place, before the final consonants had been dropped (§ 657). For no spirants show themselves where a final consonant did not originally stand. Thus we arrive at the following important conclusion for the investigation of the history of sounds : word-forms, after which spirants generally make their appearance, originally ended in vowels, and those, after which the tenues remained, originally ended in consonants. To these were added various innovations by transference of forms, and the law can still be observed with any consistency in our monuments only in groups of words which are syntactically closely connected. *a thuath* 'O folk', *a chara* 'O friend' : Gr. *ὦ* Lat. *ō*. *dā charit* 'two friends', *dī thuait* 'two peoples' : Skr. *dvā*, *dvē*. *ro charus* s-pret. 'amavi', *ro* = Gr. *ῥο*. Cp. the list of the forms, behind which spirants appear for the tenues, in Windisch's Ir. Gram. § 92. Compare also the initial sound after the members of compounds : *oenchossid* 'one legged' from **oino-* c., *so-thenga* 'eloquent' from **su-t*.

t became *d* in pre-accentual syllables, when absolutely initial, e. g. *do-gáir* 'he calls', but *tó-gairm* 'a call'; *do-máthir* 'thy mother', but *co-t-máthir* 'with thy mother' *t-és-erge* 'thy resurrection', cp. Skr. *táva* Gr. *τεό-ς*. So also Mid. Cymr. *dy wlat* 'thy land' (*gwlat*), but *yth wlat* 'in thy land'.

In the same positions where the tenues became spirants, *s-* passed into *ś-* (*h-*) and *f-* was dropped (the muteness of the *f* is represented by *f̊*). *no sessam* 'or standing' : cp. Lat. *sistō*. *a fir* 'O man'. Compare the transition of medial *s* to *h*, see § 576, and the loss of medial *u*, see § 174.

We saw in § 522 that *b*, *d*, *g* had become *b̃*, *d̃*, *g̃* after vowels, while the letters *b*, *d*, *g* were retained in Old Irish writings. That this change was also effected in conditional initiality, that e. g. *a dē* 'O god' was pronounced *a d̃ē*, may be concluded from the modern orthography which also puts *bh*, *dh*, *gh* initially.

A similar relation existed between *siur* and *fiur* 'sister' from **sue(s)ōr* as between *s-* and *s̃-*. The form with *f-* stands regularly after words ending in a vowel. Cp. § 175.

2. We saw in §§ 212. 513 that *-nt-* and *-nc-* became *-nd-* and *-ng-* and the nasal disappeared, e. g. *cēt* pronounced *cēd* (Mod.Ir. *ceud*) 'hundred' = Cymr. *cant* Lat. *centum*; *ēc* pronounced *ēg* (Mod.Ir. *eug*) 'death' = Bret. *ancon*. Further by § 520, that *-mb-* and *-nd-* became *-mm-* and *-nn-* in O.Irish, e. g. *camm* 'crooked' = Gall. *cambo-*. Both previous stages occur also in the junction of connected words.

From gen. pl. **inna n-cert* 'of the rights', **inna n-tuath* 'of the peoples' (cp. *inna n-anmann* 'of the names' etc. §§ 211. 657, 5. 7. 8) arose *inna gert*, *inna duath*, generally written *inna cert*, *inna tuath* (like *ēc*, *cēt* instead of *ēg*, *cēd*); it was only in few cases in the O.Ir. period that account was taken of the change which had taken place, by the writing of the media. In Mod.Ir. orthography they write *gc-*, *dt-*, e. g. *na gceart* = O.Ir. (*in*)*na cert*. This phenomenon is called *eclipsis destituens* in Keltic grammar.

Gen. pl. *inna m-bō* 'of the cows' became *inna mmō*, *inna mō*, *inna n-dath* 'of the colours' became *inna nnath*, *inna nath*. The old spelling was however retained, and the spelling *-mb-* and *-nd-* also existed medially in the O.Ir. period beside the phonetic spelling. Cp. also *athconnarc* beside *athcondarc* 'I looked' (to Gr. *δέδορκα*). This phenomenon is called *eclipsis nasalis* in Keltic grammar.

Gen. pl. *inna sūle* 'of the eyes' from **inna n-sūle*, just as medial *n* disappeared before *s*, e. g. in *gēis* 'swan', see § 212.

3. *s-* disappeared before *t*, e. g. *tiagaim* 'I stride, go': Gr. *στειχω*. See § 575.

Germanic.

§ 659. Finals in Prim. Germanic.

1. Final long and short vowels underwent no reduction at this period.

**fexu* n. 'cattle' Goth. *faihu* : Skr. *páśu*. **berizi* 'thou bearest' **beridi* 'he bears' Goth. *bairis bairip* : Skr. *bhārasi bhārati*. **uxsin-i* loc. sg. of the st. **uxsen-* 'ox' Goth. *aúhsin* : cp. Skr. *ukśán-i*. **uaiti*, older **uaitē* 'he knows' Goth. *váit* : Gr. *οἶδε*. **uulfi*, older **uulfe* voc. 'wolf' Goth. *vulf* : Gr. *λύκε*. **aba* 'of, from' Goth. *af* (*ab-u*) : Gr. *ἀπο*.

Rem. Some assume that all short vowels except *-u* were already dropped in prim. Germ. in unaccented syllables. But then **berizi beridi* must necessarily appear in Goth. as **bairs bairp* and the 2. sg. imper. **uadīi* = Skr. *vartāya* Indg. **uortēi* as **vardi* (whereas it is *fra-vardei* 'destroy').

**frijōndi* fem. 'friend' Goth. *frijōndi* : cp. Skr. part. fem. *tu-datī* 'tundens'. **zumō* 'homo' Goth. *guma* : Lat. *homō*. Nom. acc. pl. neut. **iukō* 'yokes', Goth. *juka* beside *pō* : cp. Lat. *oppida oppida*, Skr. Ved. *yugā*. Nom. sg. fem. **ainō* 'una' Goth. *aina* beside *ainō-hun sō* : Gr. *οὐνὴ* 'the ace on dice'.

2. In like manner *-ai* = Indg. *-oi* and *-ai* suffered no change. Nom. pl. **blindai* 'blind' Goth. *blindai* OHG. *blinte* : cp. Gr. *καλοί*. Loc. sg. **uulfai* (**uulfa-* 'wolf'), OHG. *wolfe* O.Icel. *ulfe ulfi* : cp. Gr. *οἴκου* 'at home'.

3. *-ōi*, *-ōu* became *-ai*, *-au*. Dat. sg. fem. **zēdōi* 'to the gift' became **zēbai* Goth. *gibái* : cp. Gr. *χώρα* (cp. also dat. sg. Goth. *pizái* and Skr. *tásyāi*). OHG. *wolfe* (2) was also probably a dat. form, which arose from **uulfōi* : Gr. *λύκω*. **ahtōu* 'eight' became **ahta* Goth. *ahtáu* OHG. *ahto*. Loc. sg. **sunōu* (*sunu-* 'son') became **sunau* Goth. *sunáu*. It is more uncertain whether Goth. *anstái* (st. *ansti-* f. 'favour') came from **anstēi* (§ 645 finals 1.)

These shortenings were carried out in absolute finality and before initial consonants. Cp. **flaizē* (O.Icel. *fleire*) fr. **flēizē* § 614.

4. Vowels remained unshortened before nasals, liquids, ex-

plosives and spirants, e. g. nom. sg. **uulfaz* nom. pl. **uulfōz* : Skr. *vfkas vfkās*.

5. *-m* became *-n* and thus fell together with Indg. *-n*. Acc. sg. **uulfa-n* **sunu-n* Goth. *vulf sunu*, cp. Goth. *þan-a* 'the' : Skr. *vfka-m sanú-m tá-m*. Gen. pl. **ʒebōn* Goth. *gibō* : cp. Av. *vanqm* 'of trees'. Indg. *-n* e. g. in nom. sg. **raþiōn* 'account' Goth. *raþjō* : cp. Gr. *μῦκον* 'poppy'. Later *-n* dropped out after short vowels, whereas it was only reduced in some way or other after long vowels. **uulfa-n* **sunu-n* became **uulfa* **sunu*, but **ʒebōn* **raþiōn* became **ʒebō* **raþjō*. Cp. § 214 p. 182.

-rm (through the intermediate stage *-rn*) probably became *-r* in prim. Germ. For Goth. acc. *brōþar* 'fratrem' probably arose from **bhrátorm*. See § 645, finals 2.

6. Explosives dropped out. It cannot be determined whether they had previously undergone all the stages of sound-shifting (§ 527 ff). If we assume that they disappeared after undergoing complete sound-shifting, the prim. Germ. changes are to be exhibited as follow: -- 3. sg. opt. pres. **bérai(ð)* 'he may bear' Goth. *bairái* : Skr. *bhárēt* Indg. **bhéroi̯t*. 3. sg. opt. pf. **bēri(þ)* Goth. *bēri* : cp. Lat. *velit*; the ending *-i-t* was a new formation for Indg. *-iē-t*, see the accident. 3. sg. **iē(ð)* 'went', Goth. *iddja* : Skr. *á-yāt*. 3. pl. opt. pres. **bérai̯n(d)*, probably a Germ. new formation, Goth. *bairáin-a* (the particle *-ō* may have been first added after the dropping of the dental) : cp. Gr. *ῥέποιν* subsidiary form of *ῥέποιεν*. 3. pl. opt. pf. **bēri̯n(þ)*, certainly a Germ. new formation (see the accident), Goth. *bērein-a*. 3. pl. indic. pf. **bēri̯n(þ)*, Goth. *bērun*; *-un(þ)* = Indg. *-i̯t*, § 226. **téxun(d)* 'ten', Goth. *taihun* : cp. Lith. st. *dėszimt-*; the same ending in Goth. *niun* 'nine', but this is probably a Germ. new formation after the word for ten, since judging from the other Indg. languages we should rather expect **niu* (= **neuy*) in Goth. (§ 179).

Goth. *þamma* 'to the' may have been ablative, prim. f. **tosmēd* (cp. *hvammē-h*), in which case OHG. *demu* would be fr. **tesmōl* : Skr. *tásmāt*; but the prim. Germ. ending *-ē -ō*

might equally have been an instrumental ending, Indg. *-ē -ō* (Goth. instr. *þē*). The same doubt exists in the case of Goth. *vulfa*, which can be traced back to Indg. **ulqēd -ōd* abl. and to **ulqē -ō* instr. and possibly was a continuation of both Indg. cases at the same time. Cp. the accidence.

7. Indg. *-s* and *-z* may for the most part have been levelled to *-s*, when Verner's law began to operate. By this law, the double endings like *-ōz* and *-ōs* in the nom. pl. of Indg. *o-* and *a-*stems then arose. See § 583. Was *-z* in the nom. sg. already at that period generalised?

-ts became *-ss -s*, *-ks* became *-χs* according to § 527. One said e. g. **fōss *fōs* 'foot' (Gr. Dor. *πίς*, Indg. **pōts*, stem *ped-*, cp. 311 p. 249) and **meluxs* 'milk' fr. **melχs* (§ 628); Goth. *fōtus* and *miluks* were new formations.

§ 660. Finals in Gothic.

1. With the exception of *u* all other prim. Indg. final short vowels, or short vowels which became final in prim. Germ. were dropped and also in the final syllables of polysyllabic words when followed by a single consonant other than *i, u* (§ 659, 1. 4. 5. 7).

2. sg. *batris* fr. **birizi*. 3. sg. *vdit* fr. **uaiti*. Voc. *vulf* fr. **uulfi*. 2. sg. imper. *fra-vardei* fr. **uardi(i)*. *af* fr. **aba*. But *faithu*: § 659, 1.

Acc. *vulf* fr. **uulfa*. Acc. *gast* 'guest' fr. **gasti*. But *sunu*. § 659, 5.

For the different treatment of the *u* in *triu* 'stick, prop' fr. **triu(a-n)* and *lēv* 'opportunity', fr. **lēu(a-n)* cp. § 179 p. 156.

Nom. sg. *vulfs* fr. **uulfa-z*. Nom. sg. *gasts* fr. **gasti-z*. Nom. pl. *gumans* 'homines' fr. **zuman-iz*: cp. Gr. *τίκτων-ις*. Nom. pl. *sunjus* fr. **suniu-(i)z* (cp. § 179 p. 156). Nom. pl. *gasteis* fr. **gasti(i)z*. Adv. *mins* 'less' fr. **minns*, further **minniz*, cp. adj. *minniz-a* gen. *minniz-ins*. But with *u* nom. sg. *sunu-s*, 3. pl. *bērun*; with double final consonants acc. pl. *vulfa-ns*, *gasti-ns*.

Rem. 1. The acc. *brōþar* would also form an exception, if *-n* was dropped already in prim. Germ. See § 659, 5.

Rem. 2. So far as the vowels in final syllables are concerned the language on Norse runic inscriptions is more archaic than Goth. Acc. sg. Neut. *horna* 'horn' = Goth. *haúrn*. Nom. sg. *dagar* 'day' = Goth. *dags*. Nom. sg. *gastis* 'guest' = Goth. *gasts*. Nom. pl. *dohtr-is* 'daughters'.

When Consonant + nas., liquid, *i* or *u* preceded the vowel, the nas., liquid, *i*, *u* became sonantal (Samprasāraṇa):

Nom. **ēbna-z* acc. **ēbna(-n)* 'even', nom. **maiþma-z* acc. **maiþma(-n)* 'present', nom. **akra-z* acc. **akra(-n)* 'acre', nom. **fuzla-z* acc. **fuzla(-n)* 'bird', respectively became *ibns ibn*, *máiþms máiþm*, *akrs akr*, *fugls fugl*, in like manner gen. **faðraz* 'father's, loc. *faðri* (= Gr. *πατρός πατρὶ*) became *fadr̥s fadr̥*. We do not know however whether these forms remained disyllabic in Goth. or whether they had become monosyllabic by further reduction (*ibns ibn* etc.). Cp. §§ 215. 277. 635.

2. sg. imper. *hiri* 'come hither' fr. **hir-īi*, older *-īe* (2. pl. *hirjip*): Gr. *κλαῖε* fr. **κλαF-κε*. Acc. sg. masc. *hari* 'army' fr. **ḥar-īa(-n)*. Nom. acc. sg. neut. *kuni* 'race, sex' fr. **kun-īa(-n)*. Nom. *skadu-s* acc. *skadu* 'shadow' fr. **skaðma-z -ma(-n)*, as is to be concluded from the derivatives *ufar-skadvjan* 'to overshadow' and from OHG. *scuto* gen. *scatawes*.

Rem. 3. Nom. like *harjis* 'army', *aljis* 'alius' present difficulties. Forms in *-io-s* and *-īi-s* had descended from pre-Germanic times, cp. Lith. *naū-ja-s* 'new' and *mėdis* 'tree' (fr. **med-īi-s* § 147 p. 131). See § 84 rem. 1. I believe that both categories first of all regularly fell together: **alīa-z* (Lat. *aliu-s*) became **aliz* and **alīi-z* (O.Lat. *alis*) became **aliz* (with the latter compare **þuuzg-* fr. **þuuzg-* § 180 p. 158). Goth. then re-introduced the *i* (*aljis*) after the gen. *aljis* on the analogy of the (regular) formal equality of the nom. *vilþeis* ('wild') and gen. *vilþeis* etc. Did *niuvis* 'new' appear for **nivis*?

2. Prim. Indg. long final vowels, or those which became final in prim. Germ., were shortened in the final syllables of polysyllabic words (§ 659, 1. 6).

Nom. *frijōndi* fr. **friḷōndī*. *guma* fr. **gumō*. *batra* 'I bear' fr. **berō*: Gr. *φέρω*. *aina* fr. **ainō*. Acc. *hvan-a* 'whom?' fr. **ḥuan-ō*, cp. *hvan-ō-h*; *-ō* particle. *hamma* fr. **ḥammē*, cp. *hwammē-h*. *bēri* fr. **bērī*.

3. Prim. Germ. *-aī* = Indg. *-oi -āi -ēi* (?) *-oi* (§ 659, 2. 3. 6) and prim. Germ. *-au* = Indg. *-ōu* (659, 3) remained unchanged: *blindai*, *gibai*, *anstai* (?), *bairai*, *ahtau*.

4. The reduced nasal (§ 659, 5) disappeared after long vowels, but the long vowel remained unchanged. Nom. sg. fem. *raþjō* fr. **raþjō**. Gen. pl. *gibō* fr. **gebō**. Nom. acc. sg. neut. *hairtō* 'heart' fr. **xertō**, cp. nom. acc. pl. *hairtōn-a*. Gen. pl. *vulfē* fr. **uulfē**. Nom. sg. fem. *managei* 'multitude' fr. **manazī**, cp. gen. sg. *managein-s*.

Rem. 4. Acc. sg. *giba* was the nom. form which supplanted **gibō* (cp. Skr. *dāva-m*). 1. sg. *tavida* 'did' was the form of the 3. sg. = prim. Germ. **-dēd**, which was supplanted by *-dō* fr. **-dō-m** (Norse run. *tavido*), in like manner also in Norse the real old 1. sg. in *-da* later gave way to the form of the 3. sg. in *-de dī* (Noreen Aisl. and Anorw. Gramm. § 449).

5. *-b*, *-d*, *-g*, *-z* became voiceless (for *-rz* see 6.). *af* 'of, from' fr. **ab(a)*. *batriþ* 'bears' from **birid(i)*. Acc. sg. *vig* 'way', read *viχ*, fr. **uiz(a-n)*. Nom. sg. *vulfs* fr. **uulfa-z*, pl. *vulfōs* fr. **uulfōz*. *bairis* 'bearest' fr. **biriz(i)*. This change regularly took place partly in absolute finality, and partly before voiceless spirants (cp. nomin. sing. *liufs* 'dear' from **liuds*). See §§ 531. 539. 583.

We conjectured in these passages that in like manner the voiced explosives became voiceless, even though the writing does not exhibit them as voiceless sounds, e. g. *band* 'he bound'.

6. *-rz* became *-rr -r*. Nom. *vair* 'man' fr. **uir(a)-z* (gen. *vairis*), correspondingly *baúr* 'son' *stiur* 'bull', *káisar* 'emperor', *anþur* 'second', *unsar* 'our'. Exceptions are adjectives like *hōrs* 'adulterous' (Eph. V. 5) *skeirs* 'clear' in which the *-s* was restored to distinguish them from the neuter. Cp. footnote on p. 221.

Rem. 5. Compare on the other hand the adv. *vairis* 'worse' fr. **uirsiz* (adj. *vairisiz-a*).

§ 661. Finals in West Germ. especially in OHG.

1. Final long vowels, inherited from prim. Germ., were shortened in prim. West Germ. (§ 659, 1. 6). OHG. *biru* 'I bear' fr. prim. Germ. **berō*. OHG. instr. sg. *tagu* fr. prim. Germ. **dazō*, st. **daza-*. Ags. nom. sg. fem. *ziefu* 'gift' fr. prim. Germ. **gebō* (OHG. *geba* is the acc. form). OS. nom. acc. pl. neut. *fatu* 'vats, vessels' fr. prim. Germ. **fatō*. Ags. *ðon-e* OS. *than-a* 'the' (acc.) fr. prim. Germ. **þan-ō*. Ags. nom. sg. fem. *hæð* 'field, heath', older **haiþi* (2.), fr. prim. Germ. **χaiþī* (Goth. *háiþi*). OHG. 3. sg.

opt. pf. *zigi* 'he may have accused' (1. sg. indic. pres. *zihu* 'I accuse') fr. prim. Germ. **tiȝv(p)* (Goth. *taihi*).

2. After the completion of this process the West Germ. law of syncope operated (§ 635) according to which final short vowels or short vowels followed by a single consonant disappeared in the final syllable of disyllabic words (with the accent on the first syllable), when the first syllable was long; they likewise disappeared in trisyllabic and polysyllabic forms when the penult had the secondary accent. The purely regular relation was often disturbed through new formations made by levelling.

OHG. *sunu* 'son' = Goth. *sunu-s*, *fihu* 'cattle' = Goth. *faihu*, but *fluot* 'tide' = Goth. *flōdu-s*; the forms *sun*, *lid* (Goth. *lithu-s* 'member') etc. were new formations after forms like *fluot*. OHG. *chumi* 'a coming' = Goth. *qums* prim. Germ. **kumi-z*, but *gast* 'guest' = Goth. *gasts* prim. Germ. **gasti-z*; *stat* 'place, stead' = Goth. *staps* prim. Germ. **staði-z* (OS. still *stedi*) etc. were new formations. Here are also to be compared the compounds like OHG. *situ-lîh* 'moral' (*situ*, Goth. *sidu-s*) *witu-hopfo* 'hoop' i. e. 'wood-hopper' (*witu* 'wood') beside *lust-sam* 'pleasant' = Goth. *lustu-sams* 'wished for'; *steti-got* 'genius loci' *slegi-rind* 'a bullock to be killed' (OS. *slegi* 'a slaying') beside *gast-hūs* 'inn' (cp. Goth. *gasti-gōdei* 'hospitality').

OHG. *wolf* = Goth. *vulfs* prim. Germ. **uulfa-z*, *sceffin* 'sheriff', *drigil* 'servant-boy', *irdîn* 'earthy' = Goth. *airþeins* prim. Germ. **irþina-z* etc. were regular, and after them were formed such as *tag* 'day', *weg* 'way'. In like manner also neut. *joh* 'yoke' (prim. Germ. **iuka(-n)*) after *wort* 'word' etc. Cp. *tago-lîh* *taga-lîh* 'daily' *wego-wîso* *wega-wîso* 'sign-post' with *wîn-garto* 'vineyard' *himil-rîhhi* 'kingdom of heaven'.

Prim. Germ. **gastij-iz* 'guests' regularly became **gastiz*, through the intermediate stage **gastiiz*, (after this **þriz* 'three') which gave OHG. *gesti* (5. 6.).

After *hîlf* 2. sg. 'help' fr. **hîlfi* were formed such as *bir* 'bear' for **biri* (Gr. *φῆρε*); prim. Germ. **naziji* 'make whole' (Goth. *nasei*) became **nazî*, thence (by 6.) *neri*. After *bant* 'he bound' (prim. Germ. **bandi*, Skr. *babāndha*) *chōs* 'he chose'

(prim. Germ. **kaysi*) etc. were formed such as *was* 'he was' *nam* 'he took'. 3. sg. indic. pres. *birit* fr. **biridā* (Goth. *bairiþ*). Instr. pl. *blintēm* 'blind' fr. **blindai-mi* (Goth. *blindāim*). *aba* 'from': Gr. *ἀπο*.

1. sg. *biru* 'I bear'; forms like *hulfu* were either formed after *biru* or had regularly remained unshortened before enclitics and then came to be used in other cases (cp. Paul in Paul-Braune's Beitr. VI 160). Instr. *tagu*; after this and the trisyllabic forms, in which the case endings had a secondary accent and therefore remained (§ 689), arose forms like *sēwu* (nom. *sēo* 'sea'); in this the effort not to leave the form phonetically equal to that of the nom. and acc., might have formed a factor. Ags. preserved the regular double forms in the nom. sg. of the Germ. *ō*-stems: *ziefu* 'gift' (Goth. *giba*), but *sorȝ* 'sorrow' (Goth. *saúrga*) *fíren* 'sin' (Goth. *fairina* 'debt'); OHG. had the regular forms in *buoȝ* 'improvement' (Goth. *bōta* 'benefit') *kuningin* 'queen' adj. *blint* 'caeca' (Goth. *blinda*) etc.; the forms *buoȝa kuninginna gēba* etc. beside these were accusatives. In the nom. acc. pl. neutr. the regular state shows itself in Ags. OS. *fatu* 'vats, vessels' against Ags.OS. *word* 'words' (Goth. *vaúrda*); on the other hand OHG. *faz* a new formation after *wort*. Ags. *ðon-e* OS. *than-a* 'the'. Ags. *hæð* 'heath' = Goth. *háiþi*, beside this OS. *thiui* 'maid' = Goth. *þivi*. OHG. 3. sg. opt. *zigi*, but also *hulfi bāri* etc.; that the regular forms **hulf* **bār* were put aside, was due to the influence of the other persons of the same mood (cp. the 3. sg. opt. of the Alemanic weak preterites like *salbōti neriti mohti*, where the influence of the other persons is still clearer, cp. 2. sg. *salbōtis* 1. pl. *-īm(ēs)*).

In all the cases named it is a question of loss of a vowel by which the word lost one syllable. On the other hand forms like OHG. *ēban* 'even' *acchar* 'acre, field' *fogal* 'bird' had experienced samprasāraṇa: the first form e. g. had passed through the stages **ēbnaz* **ēbnȝ* **ēbȝ* *ēban*. See §§ 215. 277. 635. 660, 1. Here perhaps also belong forms like nom. sg. masc. *gelo* 'yellow' (gen. *gelawes*) from **zelȝa-z* (cp. Lat. *helvos*), nom. acc. sg. neut. *melo* 'meal' (gen. *melawes*) from **melȝa(-n)*.

3. The *-ay*, which arose from *-ōy* in prim. Germ. (659, 3), became *-ō* in West Germ. at the same time with the other *ay* in unaccented inflexional syllables. Hence OHG. OS. *ahto* 'eight' = Goth. *ahtáu*. The shortening of the *-ō* took place according to 6.

4. The weakened nasal of prim. Germ. forms as nom. sg. **χanō* 'cock' (beside **χanō* = Goth. *hana*) gen. pl. **dazō* 'of days' (beside **dazē* = Goth. *dagē*) nom. sg. **manazī* 'multitude' (Goth. *managei*) was dropped in prim. West Germanic: OHG. *hano*, *tago*, *managi menigi*. The shortening according to 6.

5. Of the prim. Germ. postvocalic *-s* and *-z* the former remained in West Germ., e. g. OS. *dagos* = Goth. *dagōs*. The latter was preserved as *-r* when closely connected with a following word, as in OHG. *ir* = Goth. *is*, in other cases it was dropped, e. g. OHG. OS. nom. *sunu* = Goth. *sunus*. See § 583. On the shortening of the long vowels after the loss of the *-z* see 6.

Rem. The *-s* of the OHG. 2. sg. opt. *berēs* (prim. Germ. **bēraiz*, Goth. *bairais*) and of the 2. sg. indic. *biris* (prim. Germ. **berizi*, Goth. *bairis*) is due to the pronoun *du* prim. West Germ. **pū* being frequently attached enclitically. The sibilant was pronounced voiceless before *p̄*- and *p̄*- became *t*- (cp. Goth. 2. sg. perf. *last* from **laspa*, §§ 541, 1. 553, 1). Thus arose OHG. *berēstu*, *biristu*, correspondingly also opt. *bāristu* and Indic. *neritōstu*. From these were then made by false etymological division *birist du* (*thu*) etc., in which process the 2. sg. *bist*, which had already previously come into existence for *bis* after the analogy of the preterite-presents *kanst tarst*, helped to set the model.

But beside these still appear in OHG. *wili* = Goth. *vileis* (Lat. *velis*), *bāri* = Goth. *bēreis* etc., which represent the undisturbed development of the West Germanic ending *-iz* (cp. von Fierlinger Kuhn's Ztschr. XXVII 430 ff.).

6. Later than the shortening mentioned under 1. occurred the shortening which was experienced in polysyllabic words by the long vowel, after which *-a* (4.) or *-z* (5.) had been dropped, and by *-ē* and *-ō* (§ 83 p. 79) from *-aī* and *-ay*, which were either already final in prim. Germ. or had become so after the loss of *-z* (5.), as well as by the *-ī* (2.) which had arisen from *-iī*. This shortening also, as it seems, occurred already in the period of the West Germ. prim. community.

OHG. *hano* from **hanō*(^{*}). *tago* from **dagō*(^{*}). *managi menigi* from **manazū*(^{*}); the form *managī* existing beside this had its *-ī* after the analogy of the other cases (*managīn*).

OHG. 2. sg. *wili* from **wilī*(*z*). *bāri* from **bārī*(*z*). Nom. pl. *gesti* 'guests' from **gastī*(*z*) prim. Germ. **gastijiz* (Goth. *gasteis*); cp. beside this *dri* 'three' (Goth. *þreis*). Nom pl. masc. *taga* 'days' = Goth. *dagōs*. Nom. pl. *geba* 'gifts' = Goth. *gibōs*; I leave it undecided whether the form *gebā* had its long vowel from other cases with long vowel or from once present secondary (originally oxytoned) forms in *-ōs* (§ 583).

OHG. nom. pl. masc. *blinte* 'blind' = Goth. *blindái*; beside this *dē* 'the' = Goth. *þái*; in *andrē*, which is met with twice, the *-ē* was transferred from *dē*. Loc. sg. *tage* from prim. Germ. **ðazai* (cp. § 659, 2. 3). 3. sg. opt. *bere* 'he may bear' from prim. Germ. **berai*(*ā*) = Goth. *batrái*. *ed-do* 'or' : Goth. *aiþ-þáu*. *ahto* 'eight' = Goth. *ahtáu* Skr. *aṣṭáu*. *suno* 'of the son' from prim. Germ. **sunayz* = Goth. *sunáus*.

OHG. 2. sg. imper. *neri* 'make whole, heal' from **nazī*, prim. Germ. **naziji* Indg. **noséje*.

§ 662. Initial sounds.

1. Prim. Germ. *χ* from *k* seems to have undergone the transition to *h* first initially before vowels, perhaps already in the prim. Germ. period. **hunda-n* 'hundred' Goth. *hund* OHG. *hunt* etc. See § 529.

2. *wr-*, *wl-* became *r-*, *l-* and *hw-*, *hr-*, *hl-*, *hn-* became *w-*, *r-*, *l-*, *n-* in OHG., e. g. *riz* 'stroke' = Goth. *vrítis*; *waz* older *hwaz* 'what' = Goth. *hwa*. See §§ 178. 529.

3. Notker's († 1022) law of initials, the so-called canon Notkerianus. For *d-*, *g-*, *b-* (= prim. Germ. *þ-*, *ǵ-*, *ǵ-*), which remained after vowels, liquids and nasals, were put *t*, *k-* (*c-*), *p-* after tenues, after voiceless *-d*, *-g*, *-b* and after voiceless spirants as well as in absolute initiality. *eines tritten*, *dih tritten* beside *demo dritten*. *ih tih* beside *in dih*. *mag ter* beside *dū daz*. *gab cold*, *des coldes*, *daz cold* beside *demo golde*. *sīnes pruoder* beside *mīn bruoder*. *sālig pin*, *ih pin* beside *dū bist*. Since *d*, *g*, *b* were pronounced voiceless and *t*, *k*, *p* without aspi-

ration, it is here merely a question of the various grades of stress with which the sounds were produced¹).

I cannot feel convinced that Nother's law only exhibits an arbitrary orthographical adaptation of fluctuating spelling (cp. Steinmeyer Ztschr. f. deutsch. Altert. XVI 139, Scherer Z. Gesch. d. d. Spr.² 143), but believe that there existed a real observation of an actual difference.

Baltic-Slavonic.

§ 663. Finals in prim. Balt.-Slavonic.

The following changes seem to belong to this period.

1. *-ōm -ōn* became *-ūn* (cp. 2.), whence Lith. *-ū* O.Bulg. *-y*, e. g. Lith. gen. pl. *dėvū* (*dėvū*) 'deorum', O.Bulg. nom. sg. *kamy* 'stone'. See § 92.

2. *-m* became *-n*, e. g. Lith. acc. sg. *tā*, dialectically *tan* *tōn* 'the', Indg. **to-m*, O.Bulg. *sūn-ěsti* 'comedere', Indg. **som*. See §§ 217. 218. 219.

3. *-t* and *-d* were dropped. 3. sg. opt. Lith. *te-vežē* O.Bulg. *vezi* (Lith. *vežū* O.Bulg. *veza* 'I drive, ride') = Skr. *vāhēt* Indg. **ueghoi-t*. O.Bulg. 3. sg. aor. *veze* = Skr. *vāhat* Indg. **ueghe-t*, 3. pl. aor. *veza* = Skr. *vāhan* Indg. **uegho-nt*. Lith. nom. acc. sg. neut. *vėžė* (see Kurschat Gramm. d. lit. Spr. § 1345) from **vežant*, cp. Gr. *φέρον* from **φεροντ*. O.Bulg. *to* 'the' = Skr. *tād* Indg. **tó-d*. It is less certain that the gen. sg. Lith. *viško* O.Bulg. *vlūka* 'of a wolf' corresponds to the abl. Skr. *vfkad* Lat. *lupō(d)*, see footnote to page 108.

Rem. The assumption of some scholars, that *-r* was dropped in the period of the Balt.-Slav. prim. community, is exceedingly uncertain. Lith. *motė* 'wife' O.Bulg. *mati* 'mother' and Lith. *sesė* 'sister': (Skr. *mātā*

1) With our sound-law is compared a law which obtains in the middle and south Italian dialects as also in Sardinian, according to which we have e. g. *sas cosas*, but *una gosa* (like *connosco : formiga*), *sos poveros*, but *su boveru* (like *ispingo : pobulu*), *sos tempos*, but *su dempu* (like *postu : istadu*) (Schuchardt Verhandl. der Leipz. Philolog.-Versamml. 1872 p. 208 and Romania III 1 ff.). Cp. also French *gras*, which had arisen from *crassus* after vowels (Neumann Ztschr. f. rom. Phil. VIII 255), and O.Ir. *inna gert*, *inna duath* (§ 658, 2).

svāsā) prove nothing at all, cp. § 645, finals 4. That O.Bulg. nom. *voda* 'water' is identical in the ending with Gr. ὕδωρ and voc. *brate* 'brother' with the ending in Gr. ἀδελφε, and that the loss of -r in the former case caused the transition to the *ā*-declension (acc. *vodaq* etc.), and in the latter case to the *o*-declension (nom. acc. *bratū* etc.), are mere hypotheses.

§ 664. Finals in Baltic, especially in Lithuanian.

1. Final short vowels, except -u, were dropped under certain conditions which are not clear. Lith. 3. sg. *žsti* and *žst* 'is': O.Bulg. *jesti* Gr. ἔστι. Instr. sg. *aki-mi* and *aki-m̃* (nom. *aki-s* 'eye'): cp. O.Bulg. *paŭ-mi* (*paŭ* 'way') Skr. *sānē-mi* 'from of old, olim'. *sukū-si* and *sukū-s* 'I turn myself'. 2. pl. *vēja-te* and *vēja-t* 'ye drive, ride': O.Bulg. *veze-te* Gr. φέρε-τε. Voc. sg. *mótyna* and *mótyn* (nom. *mótyna* 'mother'): O.Bulg. *ženo* 'O wife' Gr. γυναῖκα. From *pirmà* adv. 'before' arose the preposition *pirm̃* 'before'. The latter form shows that these shortenings took place in conditional finality.

-u suffered such a loss nowhere, as it seems. Neutr. *gražū* 'beautiful' (masc. *gražū-s*): cp. Gr. ἡδύ. O.Lith. loc. pl. *akisū* (*aki-s*): cp. O.Bulg. *paŭ-ch-ū* Skr. *āvi-šu* (*āvi-š* 'ovis').

Thus disappeared dialectically also by 3. the -i, which had been shortened from -ī, in the feminine forms *tó-ji* 'the same' *áugusi* part. pret. (to *áugu* 'I grow'): *tój áugus*.

2. *e* was dropped in the ending -es in a prehistoric period of Lithuanian. Nom. pl. *ākmens* 'stones', *dūkters* 'daughters' *dėszimts* and *desziimts* 'decades': O.Bulg. *kamen-e* from *-es, Gr. θνυμαίε-ες, O.Bulg. *deset-e*. Gen. sg. *akmeņs*, *dukteņs*: O.Bulg. *kamen-e* (§ 665, 4), O.Lat. *salūt-es* class. *salūt-is* (§ 81 rem. 1).

At a later period *a*, *i*, *u* also disappeared before -s.

sēna-s and *sēns* 'old' (on the accentuation cp. § 691 rem.), *dēva-s* and *dēvs* 'god': Skr. *sāna-s* *dēvā-s*. This shortening of the nom. sg. of Indg. *o*-stems is more frequent in some Lith. dialects than in others, but seems nowhere to be entirely wanting. I conjecture that it had its beginning in forms of three or more syllables like *óbūla-s* 'apple' *āvina-s* 'ram' and participles in -*dama-s*.

-i disappeared only in forms of three or more syllables. Instr. pl. *akiņs* beside *akimīs*, *mergōms* beside *mergomīs* (*mergā* 'girl'): cp. Skr. -*bhiṣ*.

So also *u.* Dat. pl. *vilkāms* from O.Lith. *vilkamus* (cp. § 691 rem.). The form may be identical with O.Bulg. *vlūkomŭ*, see the accidentence.

3. Long vowels and also *ē* and *ā* were shortened in final syllables, if they had the broken accent (§ 691); see Leskien Archiv. f. slav. Phil. V 188 ff. Since *a* appears for *ō*, it may be assumed that this shortening took place, when *ā* or at least very open *ō* was still pronounced for *ō* (cp. § 108).

Nom. sg. fem. *gerā* 'bona' from **gerā*, cp. the compound form *geró-ji*, so too *tā* 'the' beside *tó-ji*: cp. Gr. *χώρα*. Instr. sg. fem. *gerā* beside *gerá-ja*, so too *tā* beside *tá* (the latter originally only proclitic); the ending *-ā* from **-ām*. Acc. pl. fem. *gerās* beside *gerás-ias*, so too *tās* beside *tás* (the latter to be judged like *tá*); *-ās* from **-āns*. Nom. sg. fem. *patī* 'wife, spouse' from **patī*: cp. Skr. *dēvī* 'goddess'. Nom. acc. du. *naktī* (*naktī-s* 'night') *žmogū* (*žmogū-s* 'man') from **naktī* **žmogū*: O.Bulg. *nošti* (*nošti* 'night') *syny* (*synū* 'son'). 3. sg. fut. *būs rīs* beside 1. sg. *búsiu* 'I shall be' *rýsiu* 'I shall swallow'. Nom. pl. masc. *gerī* beside *gerē-ji* (beside this strangely *tē*): cp. Gr. *καλοί, τοί*. Nom. acc. du. fem. *gerī* beside *gerē-ji*, so also *dvī* 'two': Skr. *dśvē*, *dvē*, Indg. *-ai*. Instr. sg. masc. *gerū* beside *gerū-ju*: cp. Lat. *modo*, Indg. *-ō*. Nom. acc. du. masc. *gerū* beside *gerū-ju*, so also *dū* from **dvū* (§ 184): cp. Gr. *ἑπτα*, *δω-δεκα*. 1. sg. *sukū* 'I turn' beside the reflex. *sukū-si sukū-s* (1.).

Rem. Compare the retention of long vowels with slurred accent in gen. sg. *anō* 'illius', gen. pl. *mergū* 'puellarum' gen. sg. *mergōs* 'puellae', gen. sg. *naktēs* etc.

Such shortening also before *u*, *i*, *r*, *l*+*s*. It shows itself here by the broken accentuation passing into the slurred. Compar. *geriaūs* adv. 'better' beside *geriāusiai* 'best'. 3. sg. fut. *gaūs*, *kelaūs*, *pa-leīs*, *geīs*, *keīs* beside 1. sg. *gāusiu* 'I shall get', *kelausiu* 'I shall travel', *pa-léisiu* 'I shall let loose', *gérsiu* 'I shall drink', *kélsiu* 'I shall raise'. Cp. the author Lit. Volksl. u. Märch. p. 315, Bezzenberger in his Beitr. X 202 ff., and § 691 rem. below.

4. Prim. Balt. $-\delta i$ $-ai$ became $-ui$ $-ai$. Dat. sg. masc. *vilkuī*: Gr. $\lambdaύκω$. Dat. sg. fem. *rañkai* 'to a hand' *tai* 'to the': Gr. $χώρα, τῇ$ (Dor. $τῇ$). With this compare *vilkaīs* § 148.

5. Assimilation of final nasals to explosives and spirants of different organs, as *in kila* 'in alium' *im pōna* 'in dominum'. The treatment of $-n$ (= Indg. $-n$ $-m$) in other respects has already been discussed in § 218.

6. $-s$ became assimilated to following sz - and $ž$ -. *vėnaszové* 'one shot' = *vėnas szové*. *tókiožūvys* 'such fishes' = *tókios žūvys*. So also s - following $-sz$. *asiūsiu* 'I shall send' = *asz siūsiu*. *isvėto* 'out of the world' = *isz svėto*.

7. Of the numerous other final changes of the Lithuanian dialects, suffice it here to mention the shortening in certain districts of δ , \acute{e} , y , \bar{u} to a , e , i , u , which took place at the end of words and before final single consonants, if the syllable did not bear the chief accent. Gen. sg. *rañkas* 'of a hand' (standard Lith. *rañkos*) beside *mergōs* 'of a girl'. Nom. sg. *mergėle* 'girl' (stand. Lith. *mergėlė*) beside *srovė* 'a flowing'. Nom. pl. *pātis* 'ipsi' (stand. Lith. *pātys*), *sūnus* 'sons' (stand. Lith. *sūnūs*). This shortening was caused by the expiratory accentuation.

§ 665. Finals in Slavonic, especially O.Bulg.

1. In prim. Slav. o became u before nasals in final syllables. **vilku-n* 'the wolf' (O.Bulg. *vlūkŭ*) from **vilko-m*: Skr. *vika-m* Gr. $\lambdaύκο-ν$. **nesu-n* 'I carried away' (O.Bulg. *nesŭ*) from **neko-m*: Skr. *ābhara-m* Gr. $\acute{\epsilon}\varphiερο-ν$. **vilku-ns* acc. 'wolves', whence further by § 219 **vilkūs* (O.Bulg. *vlŭky*): Gr. Cret. $\lambdaύκο-νς$ Goth. *vulfa-ns*.

2. Then the $-n$ of the endings $-un$, $-in$, $-ün$ was dropped, and there arose $-ŭ$, $-i$, $-y$, the historical endings of O.Bulg. Acc. *synŭ* 'son': Skr. *sūnú-m*. Acc. *vlūkŭ*: Skr. *vika-m* (1.). Acc. *gostŭ* 'guest': cp. Skr. *āvi-m* 'ovem'. Nom. *kamy* 'stone': cp. Gr. $\acute{\alpha}\kappaμων$ (§ 663, 1).

Rem. The ending of the gen. pl. $-ŭ$, e. g. *vlūkŭ* 'of wolves' *mater-ŭ* 'of mothers', must be explained from $-om$. See the accident.

So also prim. Slav. *-en* and *-in* (the latter = Indg. *-n̥, -ŋ*) lost the nasal and there arose *-e*. Nom. acc. sg. neutr. *polje* 'field' from **polje-n*, older **poljo-m*. Acc. sg. *mater-e* from **mater-in*. See § 219 p. 186 f.

On the other hand *-an* and *-ēn* became nasal vowels. Acc. sg. fem. *ženā* 'wife': cp. Skr. *āśvā-m* Lat. *equa-m*. Nom. acc. sg. neutr. *imę* 'name' from **ī-mēn*. See § 219 p. 186 f.

3. Indg. prim. Balt.-Slav. *-aī* became *-ai* and fell together with Indg. *-ai -oi* and *-ē* in *-ē*. In historical times there appears partly *-i*, e. g. O.Bulg. nom. pl. masc. *ti* = Lith. *tė* Gr. *τοί, mati* 'mother' = Lith. *motė*, partly *-ē*, e. g. dat. sg. fem. *racē* 'to a hand' = Lith. *rañkai* (§ 664, 4), loc. sg. masc. *vlūcē* (*vlūkū* 'wolf') = OHG. *wolfe* (§ 659, 2). To what this duality *-i* and *-ē* is due, remains undetermined. See §§ 76. 84.

Indg. prim. Balt.-Slav. *-ōu* became *-ou*, further *-ū*. Loc. sg. *synu*: Skr. *sānāu* Goth. *sunāu* (§ 659, 3).

4. Originally final *-s* and the *-s* which later became final, were dropped. Nom. sg. *synū*: Lith. *sūnū-s*. Nom. pl. *synov-e*: Skr. *sūnāv-as*. Gen. sg. *kamen-e*: Lith. *akmenš-s* (§ 664, 2). Nom. acc. sg. neutr. *nebo* 'sky': Skr. *nābhas* Gr. *νέφος*. 2. sg. *veze* 'thou drovest': Skr. *vāha-s*. 2. sg. opt. *vezi*: Skr. *vāhē-ṣ*. Acc. pl. *syny* from **sūnūs*, older **sūnuns* (§ 219): cp. Goth. *sunu-ns*; *vlūky* (1): Goth. *vulfa-ns*; *kraje* (*kraji* 'edge') from **krāiens*, older **kājō-ns* (§§ 84. 219). 2. 3. sg. *da* (1. sg. *dachū* 'I gave', 2. pl. *daste*) from **das*; prim. Balt.-Slav. 2. sg. **dōs-s* 3. sg. **dōs-t*. 2. 3. sg. *ja* (1. sg. *jusū* 'I ate' prim. f. **ēts-o-m* i. e. **ēd+s-o-m*, rt. *ed-* 'eat') from **ēs*; prim. Balt.-Slav. 2. sg. **ēts-s* 3. sg. **ēts-t*.

This loss of *-s* was probably brought about in absolute finality and before words beginning with a consonant. See § 281 rem. 3.

5. *-ī* and *-ū* disappeared in the O.Bulg. period, after imparting their timbre to the preceding consonants, e. g. *pātem(ī)*, *pātech(ū)*. See §§ 36. 52. The transition of *-ū* to *o* in combinations like *iz-bavito i (jī)* 'liberat eum' *iz-buoljeto i (jī)* 'liberant eum' etc. is to be explained from the fact that the

pronoun, which was attached enclitically, was still only spoken as *j*: from *-tū j(i)* arose *-to j(i)* like *domoch(i)* from *domūch(i)*, see § 52.

§ 666. Initials in Baltic-Slavonic.

1. *ī* and *u* frequently arose before initial vowels. The phonetic condition was that the preceding word ended in a vowel. *ī* and *u* represent the movement of transition.

Lith. *ī. j-iĩti* 'to take'. *j-iĩ* 'in'. *j-irkla-s* 'oar'. *j-yrà* 'is'. *j-ėszkóti* 'to seek': OHG. *eiscōn*. *pri-si-j-ėsti* 'to gorge oneself'. *su-j-ėsti* 'comedere'. *lėpė-j-ėlti* 'he bid go'. Also *j-aĩt* 'up', *j-àsz* 'I' etc. *j-* seems to have been entirely generalised only in *jėszkóti* and in *j-ũnkti* 'to become accustomed' (O.Bulg. *v-yknq* 'I learn' Goth. *bi-ũhts* 'accustomed'); association with *jũnkti* 'to yoke' (rt. *jeug-*) formed a factor in the latter word.

Lith. *u. v-uėnė-s* 'fire'. *v-ũpė* 'river'. *v-oszkà* 'goat'. *v-ũszvė* 'mother-in-law'. So far as I know *v* became fixed nowhere before *u-* and *o-*, whilst in some dialects it became permanent before *ũ-* and entirely supplanted the form with *ũ-* (*ũszvė*). Here probably also belongs the *v-* in *v-ėna-s* 'unus', which must be very old, since it occurs permanently in Lettic (*w-ins*) and in the whole of Lithuanian.

Slav. *ī. j-estī* 'is': Lith. *ėsti*, cp. *nėstī* from **neestī* § 607. *j-elenī* 'stag': Gr. *ēlag-o-s*. *jastī* 'eats' from **j-ėstī* (§ 76): Lith. *ėsti*; but *iz-ėstī* 'consumes'. *imq* 'I seize' from **j-ĩmq*, inf. *j-ėti*: Lith. *imũ imti*, *j-imũ j-iĩti*; but *iz-ĩmq iz-ėti* 'to take out'. *j-ėza* 'illness' from **ĩnzà*, prim. f. **hgha*, from rt. *angh-*. *j-ėzykũ* 'tongue': Pruss. *insuwis*. *j-ablũko* and *ablũko* 'apple'. *j-qza* and *qza* 'cord'. *j-utro* and *utro* 'morning'.

Slav. *u. v-yknq* 'I learn' from **ũknq* (§ 219 p. 187) beside *uėiti* 'to teach': Lith. *j-ũnkstu* 'I become accustomed' (see above). *v-ydra* 'otter': Lith. *ũdra* (§ 257). *v-ymq* 'udder' from **ũdmēn*: Skr. *ũdhar* (§ 547). *v-* was fixed in these words as well as in *v-onja* 'smell' beside *qchati* 'to smell'. *v-qšũ* beside *qšũ* 'moustache'. *v-qza* beside *qza* and *j-qza* 'cord', to which also *v-ėzati* 'to bind' with permanent *v-*¹⁾.

1) Further examples for Slav. *j-* and *v-* in Miklosich's *Vergl. Gramm.* I² 198 f. 234 f.

Rem. 1. We must leave it for a more thorough investigation to determine, between what vowel qualities *j-* and *r-* were regularly developed in each single case and how far levelling out has taken place, further, whether anything prevents our assigning the beginning of the development of these glides to the Baltic-Slavonic primitive community (cp. Lith. *-j- ėsti* O.Bulg. *jasti* etc.).

2. *e-* uniformly became *a-* in certain Lith. districts, e. g. *asù* = *esù* 'I am', *aĩsiu* = *eĩsiu* 'I shall go' (but *at-eĩsiu*, *isz-eĩsiu* etc.). If we remember that every consonant before *e* had a palatalised pronunciation in the dialects in question, this change is easily explained as an affection of absolute initiality.

3. In Slav. *ě-* (from older *oi-*) became *i-*. *inŭ* 'one' = Lat. *oīno-s ūnu-s*. See § 84.

Rem. 2. We have probably no right to explain this change by assuming that *i* was first developed before *oi-* as a glide and that *ioi-* then became *iēi-* *iī-* (cp. *jichŭ* § 84 p. 82). Such an *i-* before *o* has not yet, so far as I know, been established.

ACCENTUATION.

The nature of accentuation¹⁾ and the accentuation of the Indg. languages in general.

§ 667. 1. Accentuation of syllables, words and sentences.

By accentuation in the widest sense is understood the gradation of a sentence according to the stress and pitch of its members.

In every separate syllable, i. e. in every quantity of sound produced with a single independent expiratory impulse, there is always one element which with respect to accentuation has the precedence of the rest, e. g. *a* in English *man*; this element is called the sonant of the syllable. The form of the tone movement in the whole of the syllable, the relation, in which non-sonant members of the syllable stand in respect of accentuation to one another and to the sonant, may differ, e. g.

1) Cp. among others Sievers Grundzüge der Phonet. ³ 176 ff., Seelmann Die Ausspr. des Lat. 15 ff.

Lith. *viř-siu* 'I shall cook' and *viř-siu* 'I shall fall', Gr. *oi-xoi* loc. sg. and *oi-xoi* nom. pl.

In a polysyllabic word there is always one syllable which by its accentuation takes precedence of the rest. This syllable is generally called simply the accented syllable. Syllables which have not the high tone or principal accent can also display different degrees of accentuation, which characterise the word. E. g. in Mod. English *cherishing*, *forgetfulness* the final syllable is more strongly accented than the penultimate, in Mod.HG. *abend-dämmerung* 'evening twilight' the antepenultimate more strongly than the other syllables which have not the principal accent and these latter again show gradations among themselves. Word-accent is thus the relative characteristic of all the syllables of a word.

The word seldom stands alone; generally it is the member of a sentence which in phonetic just as in syntactical relations forms a complete unity. Within this whole again there are words with higher, others with lower accent-points. Cp. e. g. the accentuation of the sentence *speak truth and, lie not*. To the accentuation of the sentence belongs thus everything, which bears upon the different accentuation of the words as members of a sentence.

2. Expiratory and musical (chromatic, tonic) accentuation.

If the preeminence of the sonantal element consists in the greater force, with which the breath-current is expelled (voice-stress), we have expiratory accent; if on the other hand in a raising of the voice above its ordinary level (voice-pitch) we have musical accent. The latter may be heard e. g. in the final syllable of our *really*, when spoken in a tone of surprised enquiry.

Rem. 1. For accentuation, particularly expiratory, quantity also requires attention. Languages with considerable differences of accent-stress, as German and English, have generally also more considerable differences in the duration of syllables than languages, which, like Romance, Slavonic and Mod.Gr., form their syllables with less varying stress. The treatment of syllables, which do not bear the principal accent in languages

where the accent is strongly expiratory, often shows very distinctly, how the different quantity of these syllables and the different grades of the secondary accent stand in mutual relation to one another.

None of the Indg. languages had and has exclusively expiratory and none exclusively musical accentuation. But one of the two methods of accentuation always appears in the stages of development accessible to our observation as dominant and typical for the history of sounds. Essentially expiratory accent appears in Old Armenian, in the Old Italic dialects, in Keltic, Germanic and Lithuanian, essentially musical in Sanskrit and Old Greek; we have no satisfactory information concerning the accentuation of the Old Iranian dialects and of the Old Bulgarian.

3. Three accent-grades.


Between the highest imaginable and the lowest imaginable grade of accentuation there are, strictly speaking, innumerable intermediate grades. For all practical purposes it is sufficient to distinguish three grades. The highest grade of the expiratory accent we designate the principal accent, that of the musical accent high tone, the lowest grade absence of accent (also loss of accent) and low tone. Between these lie secondary accent and medium tone.

Rem. 2. The grammatical terminology here roughly resembles that for the positions of articulation of the lingual palatals; here as there we have to deal with an unbroken graded series, and the ordinary division into dentals etc. leaves free scope, since such division fails to draw sharply defined limits.

4. The different forms of syllabic accent.

Expiratory accent. An expiration, simply allowed to die away, contains but one point of expiration. If on the other hand fluctuations in the expiratory impulse take place, still other points become perceptible alongside the principal point; these owing to their smaller force are felt as subordinate to the principal point. Where the accentuation has only one point, the sonant, the bearer of the syllabic accent, is separated from the following consonant simply by the change of position in the organs of articulation, it is cut off by the consonant, and such accent is called clear cut accent ('), e. g. English *hát*. Where

the accentuation has two (˘) the second point may still fall upon the sonant of the syllable, e. g. Mod.G. *sð* (in certain cases), or on the consonant immediately following, e. g. *mān* (Thuringian).

Musical accent. Whilst the sonant or the syllable lasts, the voice remains on the same level (level tone), or ascends from its level (rising tone), or descends (falling tone), or within the same syllable both rises and falls, or falls and rises (musical circumflex). The level tone also combines in different ways with the rising and falling tones, e. g. .

These differences of accentuation hold good for all syllables, not merely for principal accented and hightone syllables, in which alone according to the ordinary mode of marking accentuation they are usually indicated. This conclusion is established by the following considerations. In Lithuanian the nom. sg. **vārna* 'crow' became *vārna*, just as **gerd* became *gerà*, and the gen. sg. *tīlto* 'of the bridge' retained the length of the *-ō* just like *anō* (§ 664, 3). The final syllables of **vārna* and **tīlta* (*tīlto*) had thus an accent of the same form as the final syllables of **gerd* and **anā* (*anō*)¹. In Greek lowtone final *-oi* was counted long for the word-accentuation, in case the syllable, if bearing the accent, shows the circumflex, e. g. loc. sg. *oĩxoi* beside *Ἰσθμοĩ*, on the other hand it was treated as short where the syllable, if bearing the high tone, shows the acute, e. g. nom. pl. *oĩxoi* beside *καλοĩ*; the *-oi* of *oĩxoi* was thus circumflexed, but the *-oi* in *oĩxoi* had the acute.

§ 668. Our means for determining the accentuation in the older periods of the Indg. languages are the works of the native grammarians, metre, the accent marks of the texts handed down to us, the modifying influences, exercised by the accent on the sounds, and the accentuation in those living languages which form the continuation of these older stages of development.

1) Native Lithuanian scholars affirm that the differences of syllabic accent appear also in syllables which do not bear the principal accent, that e. g. in the instr. sg. *kirvū* the same slurred ('geschliffen') accentuation is heard in the first syllable as in the nom. sg. *kiŗvis* 'axe'.

Notices of grammarians we possess for Sanskrit and the classical languages. They are not precise enough to furnish us with a clear and complete picture of the accentuation.

Metre hardly requires consideration elsewhere than in HG.

For the same languages we have accented texts. The system of indicating accent is however very incomplete. The Hindoos marked with the udātta only the word-accent, without betokening the differences of accentuation between the syllables which had not the high tone and without taking account of the kind of emphasis, the quality of syllabic accentuation. Sentence accent was indicated only in so far, as under certain circumstances words with subordinate tone in the sentence as a whole, remained without mark of accent. In Greek the tone movement, which was worked out within the individual syllable, was expressed by the distinction of acute and circumflex, only however, if the syllable was the most prominent in the word. Both accents thus served at the same time to indicate the position of the high tone in the word. First attempts at indicating sentence-accent were the use of the grave (e. g. βασιλεύς ἐγένετο but ἐγένετο βασιλεύς, περὶ τούτου but τούτου πέρι) and the non-accentuation of words.

From sound-changes we may often gather what the accentuation was. Reduction and total loss of syllables point to a more strongly developed expiratory accentuation. If the accent-force of several syllables is concentrated upon one, those left without force lessen their duration and firmness. Thus the position of the principal tone is at once recognisable.

Conclusions, drawn from the younger periods of languages, are not to be applied to the older without great care. As the languages, whose course of development we can trace through considerable periods of time, show, the accentuation of a language may undergo complete modification in a comparatively short time. Only where on the whole a coincidence in the accentuation of earlier and later periods seems already probable on other grounds, ought the younger phases of language to be ad-duced, e. g. in HG., to clear up the phenomena of the older periods.

Primitive Indg. period ¹⁾).

§ 669. The position of the word-accent can be arrived at through comparison of Sanskrit, Greek and prim. Germanic

1) Of the older works on the accentuation of the Indg. languages in general or of single Indg. languages we may mention here: L. Benloew *De l'accentuation dans les langues indo-européennes*, 1847, F. Bopp *Vergleichendes Accentuationssystem*, 1854, C. Göttling *Allgem. Lehre vom Accent der griech. Sprache*, 1835, W. Corssen *Über Aussprache, Vokalismus und Betonung der lat. Sprache* II ² (1870) p. 794 ff.; cp. the list of literature in F. Misteli's *Über griech. Betonung*, 1875, p. 3 ff.

Modern literature. General: L. Masing *Die Hauptformen des serbisch-chorwatischen Accents nebst einleitenden Bemerkungen zur Accentlehre insbesondere des Griechischen und des Sanskrit*, 1876. A. Hillebrandt *Zur Lehre von den starken und schwachen Casus*, *Bezenb. Beitr.* II 305 ff. (cp. also X 318 ff.). — Sanskrit: R. Garbe *Das Accentuations-system des altind. Nominalcompositums*, *Kuhn's Ztschr.* XXIII 470 ff. W. D. Whitney *Sanskrit Grammar*, 1879 p. 29 ff. F. Knauer *Über die Betonung der Composita mit a priv. im Sanskrit*, *Kuhn's Ztschr.* XXVII 1 ff. — Greek: F. Misteli *Über griech. Betonung*, 1875, *Erläuter. zur allgem. Theorie der griech. Betonung*, 1877. J. Wackernagel *Der griech. Verbalaccent*, *Kuhn's Ztschr.* XXIII 457 ff. L. Schroeder *Die Accentgesetze der homer. Nominalcomposita*, mit denen des Veda verglichen, *ibid.* XXIV 101 ff. Th. Benfey *Die eigentliche Accentuation des ind. praes. von $\acute{\iota}$ und ω sowie einiger griech. Präpositionen*, in: *Vedica und Linguistica*, 1880. F. Blass *Über die Aussprache des Griech.*, 1882, p. 106 ff. M. Bloomfield *Historical and critical remarks, introductory to a comparative study of Greek accent*, *Americ. Journ. of Philol.* IV 21 ff. J. Kuhl *Die Bedeutung des Accents im Homer*, *Progr. von Jülich*, 1883. R. Meister *Bemerkungen zur dor. Accentuation*, in: *Zur griech. Dialektologie*, 1883. Brugmann *Griech. Gramm.* in I. Müller's *Handbuch d. klass. Altert.-Wiss.* II 48 ff. F. Hanssen *Der griech. Circumflex stammt aus der Ursprache*, *Kuhn's Ztschr.* XXVII 612 ff. B. J. Wheeler *Der griech. Nominalaccent*, 1885. — Latin: F. Schöll *De accentu linguae Latinae*, *Acta soc. phil. Lips.* VI 1 ff. R. Kühner *Ausführl. Gramm. der Lat. Sprache* I 145 ff. F. Hartmann *Ein merkwürdiger Fall von Verbalenklise im Lateinischen*, *Kuhn's Ztschr.* XXVII 549 ff. E. Seelmann *Die Ausspr. des Latein*, 1885, p. 15 ff. F. Stolz *Lat. Gramm.* in I. Müller's *Handb. d. klass. Altert.-Wiss.* II 192 ff., *Gibt es wirklich gar keine Spuren einer älteren Betonung des Lat.?*, in: *Wien. Stud.* VIII 149 ff. — Keltic: H. Zimmer *Über altir. Betonung und Verskunst = Kelt. Stud.* II, 1884. R. Thurneysen *L'accentuation de l'ancien verbe irlandais*, *Rev. Celt.* VI 129 ff., *Zur ir. Accent- und Verslehre*, *ibid.* VI 309 ff. — Germanic: K. Verner *Eine Ausnahme der ersten Lautverschiebung*, *Kuhn's Ztschr.* XXIII 97 ff. E. Sievers *Zur Accent- und Lautlehre der*

(Verner's law). The word-accent was free, that is, unrestricted either by number of syllables or by questions of quantity. E. g. **patē(r)* 'father': Skr. *pitā*, Gr. *πατήρ*, Goth. *fadar* O.Icel. *faðer* *faðir* prim. Germ. **faðēr*. **bhrātō(r)* 'brother': Skr. *bhrāta* Gr. *φράτωρ* Goth. *brōþar* prim. Germ. **brōþōr*. **oktō* 'eight': Skr. *aṣṭā*, Gr. *ὀκτώ*. **dykōnt-es* nom. pl. part. act. from *derk-* 'see': Skr. *dyśānt-as* Gr. *δοκῶντες*. **éi-mi* 'I go' **i-mēs* 'we go': Skr. *émi imás*. **lelip-umé* or **lelip-omé* 1. pl. indic. perf. act. from *leip-* 'smear, stick to': Skr. *lilipimā* Goth. *bi-libum* prim. Germ. **libumi*. **uortéiō* causat. from *uert-* 'turn': Skr. *varitáyami* Goth. *fra-vardja* prim. Germ. **wardīiō*. Sanskrit preserved most accurately the word-tone, nevertheless we find even in this language also not a few instances of shifting, see § 672.

For the relation to one another of the syllables of a word which do not bear the high tone (§ 667, 3 p. 529) we have no certain information as regards the time immediately before the breaking up of the Indg. prim. community. From certain fluctuations perceptible in the historical periods and affecting the accentuation of certain classes of genuine nominal compounds, owing to which the accent rested sometimes on the first, sometimes on the second member of the compound, we may conclude that the less accented member had preserved as medium tone the high tone originally belonging to it as an independent word, just as the syllable *-zieh-* in Mod.HG.

germ. Sprachen, 1878. F. Kluge Das germ. Accentgesetz, in: Beitr. zur Gesch. der german. Conjug. p. 131 ff., Kuhn's Ztschr. XXVI 68 ff. W. Scherer Zur Gesch. d. deutsch. Sprache² p. 75 ff. H. Paul Zum Verner'schen Gesetz, Paul-Braune's Beitr. VI 538 ff. and elsewhere. — Lithuanian: F. Kurschat, Gramm. der littau. Sprache, 1876, p. 57 ff. A. Baranowski and H. Weber Ostlithauische Texte, 1882, p. XV sqq. A. Leskien Die Quantitätsverhältnisse im Auslaut des Litauischen, Arch. f. slav. Philol. V 188 ff. Bezzenberger Zur lit. Accentuation, in his Beitr. X 202 ff. — Slavonic: L. Masing Die Hauptformen etc., see above. Nemanic Čakavisch-Kroatische Studien, 1. Accentlehre 1883—85, Sitzungsber. der Wiener Akad. B. 104. 105. 108. J. Hanusz Über die Betonung der Substantiva im Kleinrussischen, ein Beitrag zur vergleichenden Accentlehre im Slav., 1883. A. Leskien Untersuchungen über Quantität und Betonung in den slav. Sprachen, I, 1885.

wechsel-beziehungen still exhibits the word-accent of *beziehungen* or the syllable *-lai-* in Lith. *vaik-palaikis* ('ne'er-do-well') that of *palaikis* (§ 691 end). The misplacing of the high tone in the former case resembles that in the German *unbeschreiblich* beside *unbeschrëiblich*, *ungemëin* beside *üngemëin* etc.

So far as sentence-accent is concerned, the enclitic use of certain words and categories of words in Sanskrit, Greek etc. was doubtless inherited from the period of the prim. community.

Thus enclitic were:

Certain particles, as **qe* 'and': Skr. *ca* Gr. *τε* Lat. *que*; **uě* 'or': Skr. *va vā* Gr. **Fε* in *ή-ε* from **ή-Fε* (§ 677) Lat. *ve*.

The interrogative pronouns (st. **qo-* and **qi-*: Skr. *ka-* and *ci-*, Gr. *πο-* and *τι-*, Lat. *quo-* and *qui-*), if they had an indefinite meaning, cp. e. g. Gr. *τίς* 'who?' and *ἀνής τις*.

The personal pronouns, if no contrast of meaning prevailed, as between *I* and *thou* etc., cp. e. g. the enclitic Skr. *mē* Gr. *μου* O.Bulg. *mi* 'to me'¹⁾.

Further, probably in many instances, the vocative, see § 672;

Lastly the finite verb also to a large extent, always if the temporal particle **é*, the augment, immediately preceded it, e. g. **é dýket* 'he looked': Skr. *ádýśat* Gr. *ἔδρακε*; apparently already in the period of the Indg. prim. community an agglutination had taken place here which obliterated the feeling for *é* as an independent word. Further, the verb in the principal sentence was frequently appended with the low tone to those adverbs which appear in the separate languages as prepositions, as **pró bherō* = Skr. *prá bhārāmi*²⁾; more rarely the verb was welded into a unity with living case-forms. But apart from such definite categories of words with which the verb showed a special pre-

1) It is assumed that this enclitic use had occasioned the weakening of a form **tuoj* to **toj* 'to thee' (Skr. *tē* Gr. *τοι* O.Bulg. *ti*). Cp. § 187.

2) So also the passive participles and verbal abstracts with suffix *-ti-* had the tone on the prefix, e. g. **próbbhṛto-s* **próbbhṛti-s* (Skr. *prá-bhṛta-s* *prábhṛti-ś*) beside **bhṛtō-s* **bhṛtí-s* (Skr. *bhṛtā-s* *bhṛti-ś*).

ference for enclitic connexion, the verb in principal sentences had the low tone. In these it preserved its accent in Sanskrit only when the first word of a sentence (§ 672).

§ 670. Did the expiratory or the musical accentuation preponderate at the time of the breaking up of the primitive community?

The reduction and rejection of vowels point to a more strongly developed expiratory accent. This method of accentuation therefore must be referred to that period of the Indg. primitive language in which the syllable preceding the principal tone underwent the weakenings, mentioned in § 310 ff., when e. g. **pet-é-* and **derk-é-* became **pté-* and **dyké-*. That between these processes and the close of the primitive language a certain time had elapsed, is shown by the fact that the state of the language, phonetically produced by those accentual influences, was altered by a series of new formations which with good reason are referred to prim. Indo-Germanic.

Rem. E. g. dat. sg. **bhrātr-aḥ* 'to the brother' (Skr. *bhrātrē*) had come in either for older **bhrātor-aḥ* after the analogy **pātr-aḥ* 'to the father' (Skr. *pitrē*) or for older **bhṛtr-aḥ* after the analogy of the stem-form of the strong cases **bhrātor-* (e. g. acc. **bhrātor-m*). Nom. pl. **māter-es* 'mothers' (Skr. *mātāras*) with strong grade radical vowel beside **potér-es* must in like manner have been influenced by analogy. Prim. Indg. is also the levelling of **dérko-m* **dyké-s* **dyké-t* **dérko-mem* **dyké-te* **dérko-nt* (rt. *derk-* 'see') on the one hand to **dérko-m* **dérke-s* **dérke-t* etc. (Skr. *dārśa-m* *dārśa-s* etc.), on the other hand to **dykó-m* **dyké-s* etc. (Skr. *dyśá-m* *dyśá-s* etc.).

Towards the end then of the Indg. primitive community the expiratory character of the accent seems to have no longer preponderated. The fact that Sanskrit and Greek with preponderantly musical accent show as separate languages hardly any phonetic changes which could be ascribed to the effects of expiratory accent, points to this conclusion¹). If at the time of the separation of the peoples and accordingly still in the oldest periods of their separate existence the accent had had

1) In Aryan the only difference to be considered is that of *a = ą* and *an = ą̇* (§§ 228. 230) and Skr. *yāt-ás* beside *yānt-am* (§ 198).

a strongly marked expiratory character, these two languages would doubtless not have preserved so faithfully and so unabreviated the old inherited condition of the sonants. I am of opinion therefore — without venturing to express a final decision on a question so difficult and still so much requiring a comprehensive and thorough investigation —, that Skr. and Greek accentuation on the whole represent in the point in question the method of accentuation which prevailed at the time of the separation. In the prim. Germanic development the Indg. accent again became more strongly expiratory; for it is to the strengthened breath-current of the syllable bearing the principal accent that we must ascribe the circumstance that the voiceless spirants (**bróþar*- 'brother' **kéusō* 'I test') remained voiceless (see §§ 530. 581).

§ 671. The contrast between circumflex and acute in Greek and that of the slurred (*geschliffen*) and broken (*gestossen*) accent in Lithuanian appear to correspond to one another and to stand in historical connexion. Gr. nom. sg. *τῆμά* nom. pl. *τῆμαί* (orig. nom. du., see *accidence*) : gen. sg. *τῆμάς* = Lith. nom. sg. *geró-ji* nom. du. *gerė-ji* : gen. sg. *gerōs-ios*. Nom. du. *καλῶ* nom. pl. *καλοί* : gen. pl. *καλῶν* loc. sg. *Ἰσθμοῖ* = nom. du. *gerū-ju* nom. pl. *gerė-ji* : gen. pl. *gerū-jū* loc. sg. *namė* ('at home'). Cp. further 3. sg. opt. *λείποι* and *te-sukė* with reference to the remarks made on final -oi page 530.

Rem. 1. Hanssen's attempt (Kuhn's *Ztschr.* XXVII 612 ff.), to establish this difference of syllabic accent for Germanic also, has, in my opinion, not succeeded.

Further the difference of accentuation in Skr. nom. *dyáuṣ* and voc. *dyāuṣ* and Gr. nom. *Ζεύς* and voc. *Zeū* points to an original qualitative difference in Indo-Germanic (§§ 673. 677).

Hence it may be conjectured that already in the time of the Indg. primitive community, there existed different forms of syllabic accent.

Rem. 2. Owing to the incompleteness of the present investigation, I have taken no account in writing the Indg. prim. forms in this work of these different accents. In every case the word-accent has been written with the acute (').

Rem. 3. In Italic, Keltic and Germanic, a stress accent was developed on the first syllable of the word, which drove out the Indg. free accent. Thurneysen (*Revue Celt.* VI 313) conjectures historical connexion here and sets up 'a general West European regulation of accent'. The assumption of such a connexion is bold. For since in the special Germanic development the prim. Indg. word-tone still acted as a stress accent (Verner's law), the new Germanic accentuation would be a borrowing from Keltic, the Germanic tribes would through contamination have given up their native accentuation in favour of the Keltic: should not then Keltic influence reveal itself in other directions too in a far larger extent than is actually provable? Moreover Lettic and Czech show by their accentuation on the first syllable that languages can pass through the same revolution in accent quite independently. To the assumption of a connexion between Keltic and Italic accentuation I am less opposed. No other branches show so many special coincidences as Italic and Keltic.

Aryan.

§ 672. With Sanskrit accentuation alone have we a tolerably intimate acquaintance.

It has been already remarked in § 669 that the Hindoos preserved on the whole the prim. Indg. position of the word-accent. Changes were doubtless due only to analogy; in one set of instances however it is impossible to decide whether the variation belonged to the Sanskrit or the prim. Aryan period.

Examples. For **ganvās* 1. du. 'we come' (from **gṇ-uās*, § 229) came *gānvās* after the singular forms like *gānti*; the formal similarity with the forms, accented on the root, which had arisen phonetically, occasioned this innovation, cp. alongside these *ga-thās ga-tās* etc. Presents with original *á* in the root syllable, as *bhárāmi*, caused the accent in those verbs whose root syllable had unaccented *a* to pass over to the root syllable: *gáchāmi* 'I come' for **gachāmi* from **gṇ-skō* (cp. *ichāmi rchāmi* etc.), *dášāmi* 'I bite' for **daśāmi* from **dñkō* (§ 224). The transition from *matī-š* to *māti-š* ('thought'), from *paktī-š* to *pākti-š* ('a cooking') etc. is connected with the circumstance that these nouns from the Indg. prim. period had a final and initial accentuation which varied in the different cases. The accentuation *pañcá* (*Atharvaveda* V 15, 5) for *pánca* 'five' follows *saptá* 'seven'; cp. *pañcábhiḥ* : *saptábhiḥ*.

As regards sentence accent Sanskrit appears to have preserved the old position almost invariably. At least the enclitic use of the particles, like *ca vā u ha*, of the forms of the personal pronouns, as *mē mā*, of the vocative and of the verb must be regarded as Indg., as was already remarked p. 534. In independent sentences the verb had no accent unless at the beginning of a sentence, e. g. *agnīm یدे purōhitam* 'I praise Agni, the house-priest' (beginning of the Rigveda). The vocative had from the beginning the high tone on the first syllable, e. g. *pītar* 'O father' *mātar* 'O mother' (Gr. *πάτερ, μήτηρ*). It had however its independent high tone only at the beginning of a sentence, otherwise it was unaccented, e. g. *idām indra śṛṇuhi* 'this, O Indra, hear'. Just as this use appears to be original, so also the law may be old which requires the vocative, if connected with a word which more nearly defines it, to form in respect of accent a unity with that word, e. g. *vāsō sakhē* or *sakhē vasō* 'O good friend', *sāhasaḥ sūnō* or *sūnō sahasaḥ* 'O son of strength'. I conjecture that this practice in Sanskrit as in other languages, if it did not occasion, at any rate helped the formation of improper compounds, cp. e. g. Skr. *jās-pati-ṣ* 'lord of the family', Gr. *δεσ-πότης*, voc. *δέσ-ποτα*, 'house master' (§ 204 p. 171)¹), *Διός-χοῦροι* 'sons of Zeus', Lat. *Juppiter* (see § 612 p. 463), *Dies-piter*.

§ 673. According to the account of the native grammarians the Sanskrit accent was a musical one. It is obvious that there had also existed alongside that accent differences of voice stress. The expiratory accent cannot however have been very strong.

The high tone was called *udātta*, that is, 'raised' ('). Opposed to it was the *anudātta*, that is, 'unraised' (not-high tone).

The *udātta* was a simple rising tone. If the *udātta*-syllable was followed by two or more unaccented syllables, the first of these syllables had the so-called enclitic svarita ('): it was

1) The combination **dems-potis* probably dates from the Indg. primitive period; cp. Skr. *pātir dān* and *dāmpatiṣ*, the latter perhaps for **dāṣ-pati-*, with substitution of the pause-form *dān*.

pronounced with falling tone, and its accent formed the natural transition from the high tone reached in the udātta-syllable to the low tone of the next syllable but one, e. g. *bhrātāras* 'fratres', *vidūṣṭārēbhyas* 'doctioribus'.

There was, besides, the so-called independent svarita (^). It arose, when a high accented vowel was joined in the same syllable with a low accented vowel, e. g. *divīva* from *divī iva*, *ēvāśnīyat* from *ēvā aśnīyat*, *sōbravūt* from *sō (a)bravūt*, *apsvāntār* from *apsū antār*, *vyāptiṣ* from *vī-apti-ṣ*. This accent is defined as a compound accent, as a combination of a higher and a lower tone within the limits of a single syllable. It was rising-falling, the combination of the udātta with the enclitic svarita. It may be, accordingly, compared with the Greek circumflex (e. g. *τρεῖς* from **τρεῖς*).

The contrast in accentuation between nom. *dyaūṣ* and voc. *dyaūṣ* appears to have descended from the period of the Indg. primitive community, since it corresponds to the contrast between Greek *Ζεύς* and *Ζεῦ*. Cp. § 677.

Rem. Further peculiarities of Sanskrit accentuation in Whitney § 80 ff., L. Masing *Die Hauptformen* etc. p. 37 ff. 72 f. and elsewhere.

§ 674. As regards the accentuation of the Old Iranian dialects we have no information.

If the sound-law respecting the transition of *r* before *k*, *p*, *t* into a spirant which has been assumed by Bartholomae for Avestic and mentioned above in § 260, is correct, we must conclude that at the time when this sound-change took place, Avestic had in general the same word-accent as Sanskrit.

Armenian.

§ 675. That the accentuation of Old Armenian was once essentially expiratory, is shown by the numerous weakenings of syllables.

Since the vowels of the original final syllables in polysyllabic words disappeared (§ 651, 1), the accent must have been thrown back, cp. e. g. *mard* 'man' from Indg. **myrtá-s* (Skr. *myrtá-s*). And since *i*, *u*, *ē*, *oi*, *ea* remained unchanged

only in the originally penultimate syllables, while in earlier syllables *i* and *u* were rejected and *ē*, *oi*, *ea* were reduced to *i*, *u*, *e* (§§ 31. 47. 63. 79. 632), the accent must have been concentrated on the originally penultimate syllables.

Further conclusions depend upon the answer to be given to the question of the chronological relationship between the weakening in originally final syllables and the weakening in syllables earlier than the original penultimate. I believe we must assume with Hübschmann that the first mentioned weakening was earlier in time. Consequently we must conclude that in the first place a withdrawal of the accent from the final syllables in general took place, but that at the period when gen. **duster* became *dster*, accentuation of the final syllable was the regular principle.

The abandonment of the prim. Indg. word-accent presupposes the development of an expiratory secondary accent, limited by number of syllables. This gradually overpowered and drove out the original accent.

Greek.

§ 676. The prim. Indg. freedom in the position of the word accent and the capability of the prim. language to use enclitically in the sentence words of any number of syllables whatever (particles, pronouns, forms of the finite verb), were materially limited in Greek through the development of a secondary accent, of the accent, which displays itself in the so-called law of three syllables. The chief points are as follow (cp. Wheeler's treatise, cited above p. 532.):

1. Dissyllabic words with a short final syllable were not subject to the action of the secondary accent but generally preserved the old inherited word-tone. πόδα πόδες, ποδός ποσί : Skr. *pādam pādas, padás patsú*. τρεῖς from **τρι(κ)ες, τρισί* : *tráyas, triṣú*. πέντε δέκα, ἑπτὰ : *pāñca dāśa, sapṭá*. πέρι : *pári*. ἄρκτης : *ḥkṣa-s*. γόμφοις : *jámbha-s*. ἵπποις : *ásva-s*. ἀγός : *ajá-s*. ὀρθός : *ūrdhvá-s*. μισθός : *mīḍhá-m*. θυμός : *dhūmá-s*. ἀγνός : *yajñá-s*. κλυτός : *śrutá-s*. γνωτός : *jñātá-s*. βαρύς :

guri-š. ἡδύ-ς : svādú-š. μέθυ : mādhu. νέφος : nábhas. ἄνθος : ándhas. εἶμα : vásma. Here belong also word-combinations like ὅς τε : Skr. *yás ca*.

2. In disyllabic words with long final syllable and in all trisyllabic and polysyllabic words, as also in similar combinations under one accent, there was developed, in the period of the Greek primitive community, a secondary accent on the third mora from the end or, if the word ended in a trochee, on the fourth mora. Accordingly at the end of a word or combination of words not more than two, or in the case of a trochaic ending three morae could remain unaccented. In words with long final syllable the effect of the law was to permit only the acute and not the circumflex to stand on the penultimate. The secondary accent conquered the older accent, situated nearer to the beginning of the word.

Thus arose *ἡδίων* from **ἡδίων*¹⁾ : Skr. *svādīyān. φερόμενος* *φερομένοιο -ου* from **φέρομενος *φέρομενοιο : bhāramānas bhāramānasya. Ἀγάμεμνον* from **Ἀγαμεμνον* : cp. *ἄδελφε* beside *ἀδελφός* etc. *ἀπό-τισις* from **ἄπο-τισις* : Skr. *āpa-citiṣ. ἀν-ἐπι-θετος ἀν-ἐπι-θέτοιο -ου* from **ἄν-ἐπι-θετος *ἄν-ἐπι-θετοιο : án-āpi-hitas án-āpi-hitasya. ὀππότερος, ἀντὸς πότερον* (i. e. **αὐτός πότερον* 'ipse utrumvis') from **σφόδ ποτερος* (cp. Goth. *sva*), **αὐτός ποτερον. ζυγὸν φερούμεθα* (i. e. **ζυγόν φερούμεθα*) from **ζυγόν φερούμεθα : yugām bharēmaḥi. Ζεὺς ἡμῖν* (i. e. **Ζεύς ἡμῖν*) from **Ζεύς ἡμῖν*.

Rem. 1. Almost all the forms of the finite verb had the recessive tone, cp. e. g. *ἔμην δεδορκε* with Skr. *imás dadārśa*. This is probably not to be explained exclusively from the enclitic use in the principal sentence (§ 669 p. 534). Nothing prevents our assuming that the accentuation of the subordinate sentence was still in force at the time when the secondary accent was developed. Then many forms of the principal sentence necessarily acquired the same accent as the forms of the subordinate sentence. **⊥ φερομεν* of the principal sentence (Skr. *⊥ bharāmas*) became *φέρομεν*, the form of the subordinate sentence (Skr. *bhārāmas*), **⊥ φερούμεθα* of the principal sentence (Skr. *⊥ bharēmaḥi*) and **φέρουμεθα* of the subordinate sentence (Skr. *bhārēmaḥi*) fell together in *φερούμεθα*, etc. Such falling together of a part of the forms, led to considerable levellings, after the

1) We give the words as they exist in Ionic or Attic. Strictly speaking we ought to have given the prim. Greek forms.

analogy of the accentuation of the forms of the principal sentence, e. g. *ἰδοῖμεν of the subordinate sentence (Skr. *vidēma*) gave way to ἰδοῖμεν of the principal sentence.

The newly developed accent had not suppressed the old one in ἀνθρωπὸν τινα, ἄγγελός πον, σῶμά μου from *ἄνθρωπον τινα, *ἄγγελος πον, *σῶμα μου. The accent, which the first word bore, if it was not burdened with any enclitic, was too strongly fixed in the mind, to have absolutely no value. We have thus to do with the operations of analogy. Such influence shows itself still more clearly in cases like σῶμά τε. If the development had not been disturbed we should have had σώμα τε (cp. σῶμα : σώματος); the Greek left the circumflex on σῶμα and accented after the analogy of καλός τε etc.

Irregular, too, is ἄλγεά τινων for *ἄλγεα τίνων (*ἀλγεα-τίνων), cp. πατήρ ἡμῶν; the accentuation here followed the analogy of ἄλγεά τινος, τινι etc. Conversely ἄλγεα ἡμῶν for *ἄλγεά ἡμῖν after ἄλγεα ἡμῶν.

3. No changes took place if the position of the original accent and that of the secondary accent coincided. Voc. θύγατερ : Skr. *dúhitar*. ὑστερο-ς : *úttara-s*. Neut. ἥδιον : *sādātyas*. ὀκτώ-πους : *aṣṭá-pāt*. φίλος τις, Σοκράτης τις, πατήρ μου, ποταμοί τινες.

4. If the original accent stood nearer to the end of the word than the place of the secondary accent, the former partly remained and was partly thrown back.

The old tone had remained e. g. in γενιτήρ : Skr. *janitá*; ἱαρό-ς ἱαρό-ς ἱερό-ς : *iṣirás*; παχυλό-ς : *bahulá-s*; πεφνώ-ς : *babhūḥn*; πατέρες : *pitáras*; δρασόντες : *drśántas*. Further in combination with enclitics : ἀγαθά τε, ἀγαθός τις, πατήρ γε.

If the accent was thrown back we have to distinguish two cases.

a. Oxytons ending in a dactyl became paroxyton independently of the secondary accent. ἀγκύλο-ς καμπύλο-ς from *-υλό-ς : cp. παχυλό-ς. ἐρρωμένος ἀκαχμένος λελειμμένος from *-μενό-ς : cp. Φαμενό-ς Τεισαμενό-ς and Skr. *sasṃāṇá-s*; the accent of the forms of the perf. part. which ended in a dactyl was

generalised, hence λελυμένον-ς instead of *λελυμένον-ς etc. τελεσφόρο-ς from *-φορό-ς : cp. φορό-ς and ψυχο-πομπός-ς πομπός-ς ; forms in -ου were followed by δημο-βόρο-ς αἰσχρο-λόγο-ς etc. instead of *δημο-βορός etc.

Rem. 2. This law of accent seems to have been the model in the levelling of the accent in the case-forms of the consonantal declension. Following it also appeared e. g. ὄφρῦς ὄφρῦος ὄφρῦ (Skr. *bhrūṣ bhruvás* **bhruvi*) beside regular πούς ποδός ποδί, and such accentuation may in many cases have been the pattern for the polysyllabic stems.

For details see Wheeler loc. cit. pp. 60—104.

b. The secondary accent appears in place of the original. *πέλεκυ-ς* : Skr. *paraśú-ṣ*. *ἐλυτρο-ν* : *varútra-m*. *ἐκτο-ς* : *ṣaṣṭhá-s*. Whether in such cases the secondary accent drove out the original in the same way as *ἥδιων became ἡδίων through *ἡδίων, or whether the throwing back of the accent was in the first instance quite independent of secondary accent and the latter afterwards defined how far the accent should be thrown back, is quite uncertain; we might assume, e. g. that the plural *πελέκεες = Skr. *paraśáv-as* had first become *πέλεκεες from which arose afterwards πελέκεες πελέκεις. The second hypothesis seems to me the more probable.

Rem. 3. Some cases have been already mentioned in which the effect of analogy had caused a change of the old accent position. Such alterations of accent occurred frequently in other cases also. We may further mention ἐκυρό-ς instead of *ἐκυρο-ς (Skr. *śvāśura-s*) after ἐκυρά; χρυσοῦς instead of *χρύσους (from χρύσειο-ς) after χρυσοῦ χρυσῶ (from χρυσαῖον χρυσαῖω); conversely εὔνου instead of *εὔνοῦ (from *εὔνόου) after εὔνου; εὔνον (from εὔνοο-ς εὔνοο-ν).

§ 677. The syllabic accentuation of Greek was down to the christian era essentially musical.

Rem. 1. Soon after the beginning of that period, as is shown by certain metrical peculiarities, the expiratory accent became stronger and in the Middle Ages the language had already the same essentially expiratory accentuation which it has at present.

The acute (´) was a rising tone. If the sonant element had two morae, the accent continued rising in the second mora. The circumflex (˘), produced by gradual rounding of (´), was a rising-falling tone. That this difference of accentuation existed also in syllables which had not the high tone, is demonstrated by direct proofs, as was shown in § 667, 4 (p. 529).

The acute on long vowels and diphthongs is parallel to the 'broken' tone in Lithuanian, nom. *τῆμά*: Lith. *geró-ji*, see § 171. The circumflex corresponds to the 'slurred' tone in Lithuanian, e. g. gen. *τῆμάς*: Lith. *geròs-ios*, loc. cit. The accent in voc. *Ζεῦ* corresponds to the Skr. independent svarita *dýāuṣ*: the whole rising movement fell to the first mora (cp. *πάτερ* beside *πατήρ*), and thus there remained for the second only the falling movement, see §§ 671. 673. The new circumflex which arose by vowel contraction (*τρεῖς* from **τρέες*, *οἶνοῦς* from *οἰνόεις*, *φοβοῦμεν* from *φοβέομεν*, *τῆμῃντα* from *τῆμήεντα*) teaches us that the second of the sonants which have run together, had the same or a similar tone movement as the Sanskrit enclitic svarita. Thus the svarita in Skr. *divîva* from *divî ina*, may be compared with this circumflex, see § 673.

Besides the acute and the circumflex the old grammarians ascribe to Greek the grave accent (*βαρεῖα προσῶδια*), marked by ` . It is alleged for two essentially different cases.

Firstly, for the last syllable of proclitic words, e. g. *τινὰ γάρ*, *περὶ τούτου*, *ἀλλὰ ταῦτα*, *ἥ ἐ σὺ*. The accent of these words, when not used proclitically, was *τίνα*, *πéρι*, *ἄλλα*, **ῆ-φε*; the last form is proved by the fact that *-φε* is the old Indg. enclitic **-me* (Lat. *-ve*), § 669 p. 534.

Rem. 2. That the Byzantines and we along with them write the proclitic *ἐν*, *ἐξ*, *ἐς*, *ὅ ἢ οἱ αἱ* without accent, but *πρός*, *περί*, *τό*, *τόν* with the grave, has a purely graphical reason. When in the case of initial vowels the signs for accent and breathing coincided in the same letter, the proclitic monosyllables were relieved of their accent-sign. See Wackernagel Kuhn's Ztschr. XXVIII 137.

Secondly, as substitute for a final acute, when the word did not close the sentence (*βασιλεὺς ἐποίησε*), with the exception of *τίς τί*, which always retained the acute (*τίς ἐποίησε*).

Whether in both cases there was precisely the same tone movement, is not clear. Equally obscure is the character of the modification undergone by the acute in *βασιλεὺς ἐποίησε*.

Rem. 3. If we speak of a 'weakened' or 'stified' acute, the matter is as obscure as before (see L. Masing's excellent remarks loc. cit. p. 19 ff.).

Only this much is certain, that the explanation of the phenomenon must start from the fact that the grave had its position where a syllable was spoken directly after in which the tension of the voice began to rise or reached a point. In cases like **τρεῖς* (*treĩs*), *ἄλλος*, *τό-δε*, *ὅς τις*, *καλοὶ τινες* the syllable following the acute had a falling movement, the tension of the voice began to relax in it, and after *ἐποίησε βασιλεύς* came complete absence of tension, the pause. On the other hand in **βασιλεύς Σπάρτης* and in **βασιλεύς ἐγένετο* a rising tone movement directly followed the rising acute. Compare with **βασιλεύς Σπάρτης* the fact that, in the body of a word, two acutes are not tolerated in two successive morae, whence, e. g., there is no **ἄγγελος τις*, as might be expected (see Wheeler op. cit. pp. 126. 129). We may thus conjecture that the grave was not solely a rising tone.

§ 678. In matters of accentuation only trivial differences appear between the different Greek dialects.

The Lesbians alone instituted a more important innovation, by throwing back, as the grammarians tell us, the accent in every case according to the law of three syllables, e. g. *σόμος*, *βασιλεύς*, *Ἄτρεις*, *θῆμος*, *πόταμος*.

Rem. When it is said that prepositions and conjunctions as *ἀνὰ*, *διὰ*, *ἀλλὰ* retained their accent on the last in Lesbian too, it is simply a question of the proclitic grave (§ 677), which formed no opposition to baryton accentuation.

The Lesbian accentuation seems, in the main, to have arrived at this position through the great bulk of forms with baryton accent dating from the Greek prim. period having gradually drawn over the forms which were otherwise accented.

Italic. *)

§ 679. While the native grammarians tell us something of the accentuation of Latin, in the investigation of the accentuation of the other Old Italic dialects we are thrown back on what their phonetic form teaches us when compared with that to be presupposed for the period of the Italic and Indg. primitive period.

There is nothing to contradict and much to support the assumption that the prim. Indg. accentuation had already, during the prim. Italic unity, undergone a complete revolution. In polysyllabic words the accent which was expiratory was borne by

*) Cf. *Conway, A.S., Verner's Law in Italy, 1887, Lo. Trübner.*

the first syllable. Thus a secondary accent had developed on the first syllable and driven out the competing original accent.

Rem. The assumption of F. Stolz (Lat. Gramm. p. 148 and Wiener Stud. VIII 149 f.), that the Indg. final accent in **aiyó-m* (*aevom*), gen. **nāy-ós* (*nāris*) etc. still survived in the separate Lat. development, does not convince me in the slightest.

This accentuation also held good for the compound verb, and it was here certainly not merely caused by the mechanical principle of initial accentuation, but represents the prim. Indg. accentuation of the principal sentence. Such compounds with accentuation of the preposition in the Italic prim. period are e. g. Lat. *prae-hibeō praebeō* Umbr. *pre-ha-bia* 'praehibeat', Lit. *pro-hibeō* Osc. *pru-hipid* 'prohibuerit', Lat. *in-eo* Umbr. *en-etu* imp. 'inito', Lat. *con-vertō* Umbr. *co-vortus* 'redierit'. To the prim. Indg. enclisis of the verb in the principal sentence may also be due Lat. *nē-sciō*, *nōn vīs*, *mā-vīs* etc. So also *igitur* which is the same as the second member of *ad-igitur* and occurred originally only in such combinations as *quid igitur?* = **quid agitur?* etc.; if *igitur* at a later period appeared as the first word in a sentence this is parallel to the similar use of Greek *τοι* in *τοι-γαρ-οὖν*. Here belongs further also the unaccented forms of the indic. of the substantive verb, as Lat. *pōtis-sum pōssum*, *situs-est sītust*, Umbr. *peretom-est* 'peremtum est', Osc. *prúftú-set* 'probata sunt'.

The enclisis of certain pronouns and particles was also descended from the early period. Lat. *sí quis*, *nūm quis* etc., Umb. *sve-pis* Volsc. *se-pis* Osc. *svae-pis* 'si quis', Osc. *pútúrúspid* pl. 'utrique'. Lat. *ne-que*, Umbr. *nei-p* 'nec, non, neu', Osc. *nei-p ne-p* 'nec, neu'; Lat. *uter-que*, Umbr. *putres-pe* 'utriusque'. Lat. *sī-c*, *hī-ce hī-c*, Umbr. *eso-c* 'sic', Osc. *ion-c* 'eum'. Lat. *alter-ve*.

Postpositions too were enclitic in primitive Italic. Lat. *quō-cum*, Umbr. *asa-ku* 'apud aram'. Lat. *tantis-per parum-per sem-per*, Umbr. *trio-per* 'per tria, ter', Osc. *petiro-pert* 'quater'. It is impossible however to make out if this usage was pre-Italic.

Certain vowel weakenings may have been called into being in the prim. Italic period through the action of initial ac-

centuation. Cp. the nominatives Lat. Umbr. *ager* Osc. *Frunter* against Gr. ἀγρός, Lat. *famul* Osc. *famel* 'famulus', §§ 623 rem. 1. 633. 655, 9. Compare further the loss of the final vowel in some prepositions, as Lat. *ab* = Gr. ὑπο, *s-ab* = Gr. ὑπο : Lat. *ab-dō*, Pelig. *af-ded* 'abdidit', Lat. *sub-dō sub-tendō*, Umbr. *su-tentu* 'subtendito'. Here syncope might be suspected (§ 633). Yet it must be remembered that these prepositions often stood before vowels, and thus the form which had lost its final vowel before other vowels, might have become generalised (§ 655, 1).

§ 680. In Latin the initial accentuation, descended from the prim. Ital. period, caused vowel reduction in the next syllable, which had the weakest accent. The method of its action was twofold, the syllable either retained its syllabic value or, as a syllable, entirely disappeared.

pepercī from **péparcī* : *parcō*. *cectdī* from **cécaidī* : *caedō*. *cōn-scendō* from **cón-scandō* : *scandō*. *an-hēlō* from **án-(h)anslō* : *halō* from *(*h*)*anslō* (§ 208). *ex-erceō* from **éx-arceō* : *arceō*. *ob-sideō* from **ób-sedeō* : *sedeō*. *cōn-ficiō cōn-fectu-s* from **cón-faciō *cón-factu-s* : *faciō factus*. *prae-hibeō* from **prái-habeō* : *habeō*, Umbr. *pre-habia* 'praehibeat'. *cōn-stituo* from **cón-statuō* : *statuō*, Osc. *Anter-statai* dat. '**Interstitae*'. *ex-istumō* from **éx-aistumō* : *aestumō*. *in-clūdō* from **ín-claudō* : *claudō*. *sē-cernō in-certu-s* from **sé-crinō *ín-crito-s* : Gr. ἄκριτο-ς. *in-imīcu-s* from **ín-amīco-s* : *amīcu-s*. *con-tubernāli-s* from **cón-tabernāli-s* : *taberna*. Cp. §§ 33. 65. 81. 97. 109 d. That this vowel weakening was not one of the oldest historical characteristics of the prim. Latin period, is shown by the form of the borrowed words *Alixenter*, *Agrigentum*, *Tarentum*; these came by their *e* instead of *a* through the same phonetic law and were at the time accented on the first syllable.

Rem. Historical forms like *ab-arceō* beside *ab-erceō*, *ob-tractō* beside *ob-trectō*, *ex-pandō* do not prove that the law worked irregularly. Such forms depend on a re-composition, just as e. g. Mod.HG. *ur-theil dritt-theil* for *urteil drittel* show a revival of the second part of the compound after the analogy of *theil*.

ind-uō from **ind-ovō*. *ēluācru-s* from **ēlavācru-s*. See § 172, 1.

reppulī from **rē-pepulī*. *ūndecim* from **ūnu(s)-decim*. *surpulī* from **sūb-rapulī*. See § 633.

Perhaps the fact, that *o* remained unweakened before consonants in final syllables, e. g. *novo-s socio-s* (*sociu-s*), but became an irrational vowel in middle syllables, e. g. *novi-tās socie-tās*, is to be explained from a secondary accent carried by the final syllable in polysyllabic words. Cp. § 81 p. 73.

§ 681. In trisyllabic and polysyllabic words an expiratory secondary accent developed itself in pre-literary Latin according to the quantity of the penultimate syllable. If this syllable was long it bore the accent, if short, the accent was carried by the antepenult. Thus **pépercī* became *pepércī*, **inimīcu-s inimīcu-s*, **éxistumāmus existumāmus*, and **éxistumō* passed into *existumō*, **cōnficiunt* into *cōnficiunt*, gen. **cōntubernālium* into *contubernālium*.

Rem. "The Romance languages, by preserving, as a rule, the first syllable of Latin words while unaccented middle syllables often disappeared show that the first syllable always retained a considerable secondary accent; cp. **mānsiōnāticum* French *maisonne, ménage*". Thurneysen *Revue Celt.* VI 313.

Through loss of vowel in final syllables this new word-accent came to stand here and there on the last syllable, as in *illīc(e)*, *tantō-n(e)*, *audīn(e)*, *disturbāt* from *disturbāvit*, *mūnīt* from *mūnīvit*. Whether the nominatives as *nostrās Arpīnās Samnīs Compāns*, usually classified with these forms, were genuine Latin nominative formations, may be doubted.

It is difficult to get a clear idea of the nature of the newly developed expiratory accent as syllabic accent.

According to the native grammarians there were an acute (´) and a circumflex accent (˘). The former stood on all short vowels, e. g. *núx, béne, véterem*, on long vowels in the antepenult, e. g. *dēleō*, and on long vowels in the penultimate, if the final syllable was long, e. g. *régēs*. The latter stood on long vowels in monosyllables and on the final syllable of polysyllabic words, e. g. *rēx, illīc*, and on the long vowels of the penultimate, if the end syllable was short, e. g. *rēgis, rēgīna*. So far as the accentuation of the long vowels is concerned

(*rēgēs*, but *rēgis*), this difference in the forms of the syllabic accent is probably rightly regarded as a pedantic fiction of the grammarians.

Vowel shortening in *Júppiter* (*Jūpiter*) etc. points, as we saw in § 612, to a clear cut accent. Nevertheless the reason for the separate treatment of the words in question, while other words apparently similarly formed have no shortening, is quite obscure.

§ 682. Besides the cases of enclisis, mentioned in § 679, there are others whose age we are not in a position to determine. Here may be mentioned especially combinations like *in-vicem*, *dēnuō* from *dē novō*, *īlicō* from **in slocō*, *profecō* from **prō factō* originally something like 'as good as a fact' (cp. *cōn-fectu-s* § 680).

Compound words with an enclitic as second member were also subjected to this new law of accent (§ 681). **tāntō-ne*, **ūter-que*, **utrā-que*, **utrōrum-que*, **scēleris-que*, **scēlerum-que* passed over into *tāntōne*, *utérque*, *utrāque*, *utrōrūmque*, *scelerisque*, *scelerūmque*; here too the accent of the initial syllable was retained as secondary accent. On the analogy of such accentuation people also said *tantāne*, *utrāque*, where the new law had nothing to do with the giving up of the original accentuation, and *scelerā-que*, for which **scelérāque* might have been expected. In the latter case moreover this analogy was not, as it seems, the only influence; the circumstance that the last syllable of polysyllabic words had originally a secondary accent (cp. § 680 p. 548) was also not without effect. In combinations like *scelera-que* which were always felt by the speaker as a combination of two elements, the tone movement of the uncompounded first member (*scēlerà*) counteracted the accentuation of the antepenult (**sceléraque*) which formed a sharp contrast to it. This seems to be specially supported by *agitē-dum* which had no form so accentuated as *sceleris-que* alongside it.

The retention of the old accentuation by *ita-que* *ūti-que* etc., is to be explained from the fact that they were no longer felt as

compounds. They might be adduced as additional proof that **útrā-que*, **tántā-ne* was once the pronunciation.

§ 683. We saw that in prehistoric times Umbrian-Samn. dialects shared the initial accentuation of Latin. Hence the numerous instances of syncope in these dialects, as Umbr. *osatu* 'operato' Osc. *úpsannam* 'operandam' from **ópesā-*, see § 633.

Whether this accentuation still prevailed at the date of our monuments or whether a new system of accentuation had already taken its place, is a subject for further investigation. The extensive rejection of vowels in final syllables, as in Umbr. *pihaz* 'piatus' Osc. *túvtíks* 'publicus' (§§ 633. 655, 5), leads us to conjecture that the initial accentuation was retained.

Old Irish.

§ 684. The effects of accent on the form of words, prove that in the primitive Keltic period the first syllable had come to bear the word-accent owing to the development of an expiratory secondary accent.

This mode of accentuation prevailed in noun forms whether the word was simple or compound. O.Ir. *necht* O.Corn. *noit* 'neptis': Skr. *naptī-ṣ*. O.Ir. *cloth* 'renowned' O.Bret. *clot* (f.?) 'renown': Skr. *śrutā-*. Gall. *Tri-casses*; the accentuation of this word is cleared up by its Romance form, French *Troyes* (from **Trícas*). O.Ir. *túus* 'leadership, superiority, beginning', Cymr. *tywys* 'guidance' from **tó-uessu-s* = **to-uēd+tu-* (O.Ir. *do-fédim* 'I lead'), with its derivative in *-áko-* **tó-uessaiko-s* O.Ir. *tóisech* 'guide' Cymr. *tywysog* 'guide, leader, chief' O.Kelt. inscript. (Denbighshire) *tovisaci*; the great antiquity of the accentuation of this prefix follows from the *t-* instead of *d-* in the Gaelic and in the Britannic branch.

In the case of the verb there was a difference according as the verbal form was accompanied by a preposition or not. While the uncompounded verb had initial accentuation (e. g. O.Ir. *caraim* O.Cymr. *caram* 'I love'), the compound verb was not accented on the first syllable of the word, but on the first syllable of the second member of the combination; the imperative formed

an exception, for in it the preposition bore the word-accent. A peculiarity doubtless to be referred to the prim. Indg. verbal accentuation. The accentuation of the prim. Indg. subordinate sentence was retained and generalised; the imperative alone, which had no place in the subordinate sentence, still represents the accentuation of the principal sentence (cp. Skr. *prá-bhara*, Gr. *πρό-φερε*). Irish has best preserved these relations, e. g. *do-mélim* 'vescor', but imper. *tó-mil* 'vescere'; *do-bérid* 'fertis, datis', but imper. *táibrith* 'ferte, date'. The prefix form *do-* with *d* shows that the Britannic branch once shared in them (Thurneysen *Revue Celt.* VI 311).

The fact that, in the time of the prim. Keltic unitary period, when the initial syllables received the word-accent, combinations like O.Ir. *do-mélim* did not take the accent on the pre-position, proves that the latter was not yet fused with the verbal form into an indissoluble unity. The *n* of *con-* etc. points also to this as will be seen below.

Thus far the relationships of verbal accentuation allow themselves to be without difficulty connected with those which we must presuppose for the Indg. primitive period. Now Irish still shows a rule of accentuation which also seems to date from prim. Keltic, viz. the same accentuation as in the imperative 1. after the negative particles *nī nī* 'non' (*manī* 'si non', *conī* 'ut non' etc.), *nā nād nāch* 'non'; 2. after the relative (s)*a(n)*, if it was suffixed to a preposition, including the particle *in-* 'in which' and the conjunctions *ar-an-* 'ut', *di-an-* 'cum', *co-n-* 'donec, ut'; 3. after the interrogative particle *ind- inn- in-*. E. g. *nī épur* 'non dico' beside *at-blur*. That this accentuation goes back to prim. Keltic, is shown by the double form *con-* and *cóm-* of the preposition, corresponding to Lat. *cum*. Thus *con-écat* 'possunt', but *nī cúmcat* 'non possunt'. The transition from *m* to *n* cannot be comprehended from the difference of accentuation by itself, but only from the prim. Keltic sound-law according to which final *-m* became *-n* (§§ 211. 657, 8); *com* thus became *con* at a time when as yet no closer connexion with immediately succeeding verbal forms had been introduced (cp.

Goth. *and-beita* 'I scold', § 687). The retention of the *m* in *nī cumcat* will then have been due to the same cause as in the imperative, that is, the firm connexion of the preposition with the verb and the accentuation of *cóm-* in *nī cúmcat* were prim. Keltic. It has not yet been satisfactorily explained how this method of accentuation in the case of preceding negative particles etc., was arrived at in prim. Keltic.

Enclisis, inherited from the prim. Indg. period, probably appears in O.Ir. *cā-ch* O.Cymr. *pau-p* 'everybody', O.Ir. *ne-ch* Cymr. *ne-p* 'quisquam, ullus' (scarcely to be connected directly with Gr. -τε, since we should expect **cāich* **neich*).

§ 685. The accentuation, characterised in the last paragraph as primitive Keltic, appears to have experienced no material alteration in the special Irish development down to the Old Irish period.

How the strongly expiratory word-accent occasioned in many cases sound-weakening and loss of syllables, has been remarked in §§ 66. 82. 90. 98. 106. 613. 623 rem. 1. 634. 657. Consequently the Indg. vowels retained their qualitative and quantitative differences with comparative purity only in syllables under the principal accent.

We have seen in § 634 that in a certain prehistoric period of Irish the syllable immediately following the accented syllable in trisyllabic and polysyllabic words had the weakest accent, cp. e. g. dat. *cáirt-ib* beside gen. sg. *cárat*, to nom. *cára* 'friend'.

The prim. Keltic accentuation suffered greater changes in Britannic. Cymric accents almost all polysyllables on the penult. Matters are more complicated in Bas Breton.

Germanic.

§ 686. Verner's law, treated in §§ 530. 581, shows that the prim. Indg. free accentuation had still long existed in the special primitive Germanic period. On the chronology of this sound-law cp. also § 541. The word-accent had at that

time, as has been remarked in § 670 p. 536, an expiratory character.

§ 687. During the prim. Germanic period a new expiratory accentuation came into being, which in all material points was similar to that of Keltic.

The first syllable became the bearer of the accent in nominal forms, both simple and compound. Goth. *fádar* OHG. *fáter* etc. 'father' from prim. Germ. **fáðer-*, older **faðer-* : Skr. *pitár-*. Goth. *háidu-s* OHG. *héit* 'manner' : Skr. *kētú-ṣ*. Goth. *ánda-vaurdi* OHG. *ánt-wurti* 'answer'.

The simple verb likewise took initial accentuation. Goth. *vitum* OHG. *wízzum* 'we know' from prim. Germ. **ūtumi*, older **ūtumí* : Skr. *vidmá*. Goth. *sátja* OHG. *sézzu* 'I set' from prim. Germ. **sátiþ*, older **satiþ* : Skr. *sadáyāmi*.

On the other hand in the compound verb¹⁾ the first syllable of the second member received the accent. Goth. *fra-llusa* OHG. *far-llusu* 'I lose'. OHG. *fir-túom* 'I extirpate, destroy, execrate', cp. *frá-tāt* 'scelus'; *ir-lóubōm* 'I permit' cp. *úr-loub* 'permission'; *ob-lāzzu* 'I forgive', cp. *áb-lāz* 'pardon'; *zir-gángu* 'deficio', cp. *zúr-gang* 'defectio', also Ags. *zea-twe* pl. 'equipment' = Goth. **gá-tēvōs*. The different forms, which the prefix assumes in Goth. *and-beita* 'I chide' *and-hafja* 'I answer' and *anda-beit* 'blame' *anda-hafts* 'answer' show that this accentuation of compounded verbs was due to the fact that the preposition did not form a word-unity with the following verb. The pre-Germanic form of the prefix was **antá* (cp. Gr. *ἄντα*), and if the prim. Germ. **anda* in *and-beita* etc. had lost its final *-a*, this loss can only be explained by the law of finals (§ 660, 1), thus *anda* must at that time have been still an independent word. Cp. O.Ir. *con-* in *con-écat* § 684 p. 551.

Rem. The tmesis in Gothic, as *ga-u-láubjats* 'do ye two believe?', *ga-u-hva-sēhvi* 'if he saw aught'; *bi-u-gitái* 'shall he find?', *diz-uh-þan-sat* 'and he then seized' (see Bernhardt on I. Corinth. XV, 15) seems, at first sight, yet more distinctly to point to this slack connexion of the pre-

1) Denominatives like OHG. *ántwurtēn* 'to answer' from *ántwurti*, *úrchunden* 'to testify' from *úrchundi* 'testimony' do not of course belong to this class.

position with the verb in the prim. Germ. period. But Kluge (Kuhn's Ztschr. XXVI 80) assumes with good reason that the prefix was not proclitic here, but had the full accent and that the verbal form was enclitic, just as in Skr. *ápa ca tiṣṭhati* etc. If this is right, this tmesis does not prove anything for cases like *fra-llusa*.

In Germanic, so far as we can see, the imperative of compounds does not, as in Keltic § 684, form an exception. For Gothic cp. *andbindiþ* John XI, 44 'loose ye', *andhafjiþ* Mark XI. 30 'answer ye' not *anda-*. It had thus no doubt the accentuation of the subordinate sentence on the analogy of other verbal forms. An extension of this accentuation beyond its original sphere may be observed in the noun formations which attach themselves closely to the verb. That the passive participles had originally, in agreement with Skr. *prá-bhyta-s* etc., the nominal accentuation, is still shown by e. g. Goth. *ánda-pahts* 'discreet' beside *and-págkjan* 'to deliberate', OHG. *úntar-tan* Mod.HG. *únter-than* 'subject', *dúruh-noht* 'perfect' (to *duruh-núgan*), *missi-lungen* 'miscarried' (to *missi-lingen*), Ags. *frá-coð* 'despised' = Goth. *fra-kunþs*. But beside these already Goth. *and-húliþs* and *-bitans*, OHG. *far-hólan* etc. Cp. Kluge loc. cit., p. 68 ff.

Enclitics descended from pre-Germanic. *-h* in Goth. *ni-h* 'and not' = Lat. *ne-que*, *hvō-h* fem. 'each', cp. Lat. *quae-que*. *-k* in Goth. *mi-k* (OHG. *mi-h*) 'me', cp. Gr. *ἐμὲ-γε*.

The new accentuation of Germanic had probably occasioned to some degree vowel absorption in the prim. unitary period. See § 635.

The question is, did the new accentuation arise through the development of an expiratory accent on the first syllable of the word, which struggled for a long time with the old word-accent and finally overpowered it, or is Verner right in saying (Kuhn's Ztschr. XXIII 129): "The transition to the fixed accentuation (root accentuation) is an analogical formation, completely carried out. The cases, in which the accent rested upon the root-syllable, were already under the old principle of accentuation in the majority, and this mode of accentuation then spread itself in the Germanic primitive language, since the word-forms,

which had the accent on the ending, gradually threw it back on to the root syllable". That in certain cases the analogy of forms, accented on the first syllable from of old, had influence, is not to be denied, but I do not think that we can rid ourselves of the assumption of a free development of the recessive accent. I do not see e. g. how the effect of analogy helps us in the case of the numerous polysyllabic adverbs and prepositions whose initial syllable, as has been established by Verner's law, had originally no accent.

§ 688. In Gothic there are a number of sound-weakenings which show that the new Germanic accentuation remained for a certain time in this dialect on the whole unchanged, e. g. *sátja* 'I set' from **sátijō*, *súnjus* 'sons' from **súniuz* (cp. with this *gius* from **giya-z*, § 179 p. 156), *bairis* 'bearest' from **birizi*. See § 635. 660.

It cannot be decided with certainty whether this system of accentuation existed still at the period of our monuments. The alterations in Gothic, which appear in the period after Ulfilas, do not prevent us from assuming that the traditional accentuation had remained, and so we may believe that it did remain.

§ 689. In West Germanic, especially in High German, the new accentuation has persisted in the main down to the present day.

The West Germanic law of syncope (§ 635) shows us the position of the word accent, and at the same time the relation of stress, which the accents of syllables without the principal accent, had to one another. If e. g. in OHG. *hórta* (Goth. *háusida*) the *i* was dropped, but remained in *nérita* (Goth. *násida*), the second syllable must have had a weaker accent in the first case than in the second; and *hórta* shows further that the last syllable in the older form **hórita* had a secondary accent. According to Paul (Paul-Braune's Beitr. VI 136 ff.) the secondary accent in polysyllables did not merely follow mechanical routine, but was guided also by logical principles. The logical character of the secondary accents is shown by their varying with the flexion in the same word. Thus

e. g. the ending of the nom. and acc. sg. and probably also of the plural had a weaker grade of accent than the endings of the other cases, so that in the nom. and acc. of trisyllabic nouns the penult had stronger accent-stress than the last, while in the other cases the reverse held true. Paul conjectures that these functional differences of accent were already in existence in the primitive Germanic period.

In a number of cases vowel loss is to be explained from frequent enclitic or proclitic use of the word. Thus OHG. *mo nan* from *imo inan*, see p. 484; *mih* 'me' *daz* 'that' with final vowel loss in contrast with such forms as *chumi*, see p. 517. Cp. Paul loc. cit. pp. 125. 132. 144 and elsewhere.

Baltic-Slavonic.

§ 690. Lithuanian and a part of the Slavonic languages show freedom of accentuation, and there can be no doubt that this method of accentuation extends back to prim. Baltic and prim. Slavonic. But the two branches go in details only partially hand in hand, and neither of the two systems quite agrees with the system which must be presupposed for the prim. Indg. period.

There are here two possibilities — either new principles of accentuation came into being as in other Indg. languages, which caused a new word-accent but which are still concealed from us, or the innovations in accent were the ²effects of analogy only, the old inherited word-accent having been generalised differently in different categories of forms. The latter, so far as we can see at present, is the more probable hypothesis and two examples may be given to show how in this way deviations from the prim. Indg. word-accent could have arisen. The accent falls on the ending in the 1. and 2. sg. in Lithuanian, and in Slavonic (i. e. in the dialects which retained the original Slavonic accentuation) in all the persons of the pres. indic. corresponding to the Skr. *vāhami* (Indg. **uēghō*): Lith. *vežū vežī*, Russ. *vezú vezés' vezét* etc., Bulg. *vezú vezés vezé* etc.

Servian *vèzēm vèzěš vèzē* etc. (for older **vezém* etc., see § 692). We may assume that in the period of the Balt.-Slav. prim. community, the accent was already at any rate on the 1. sg.¹⁾ pushed from the root syllable towards the end of the word (cp. Leskien Archiv. f. slav. Phil. V 509 f.). If we consider now that the final accentuation in present forms composing the Skr. 6. class (*tuddmi*) comes from prim. Indg., that this accentuation therefore in such forms as Lith. *sukù* Russ. *skú* 'I turn', may be treated as original, it is not hard to conjecture that in prim. Baltic-Slavonic **uěžō* was modified into **uěžō* after the analogy of **sukō*. In Lith. and Slav. the masculine noun stems in *o* never have the accent on the final syllable in the nom. and acc. sg. If then e. g. Lith. *dūma-s dūmą* and Russ. *dym* (O.Bulg. *dymŭ*) correspond to Skr. *dhūmā-s dhūmā-m* and Greek *θῦμός-ς θῦμό-ν*, this may depend on a generalisation of the accentuation of such nouns as Lith. *vilka-s vilką* Russ. *vólk* (Skr. *vṛka-s, vṛka-m*). Whether the whole of the deviation in Baltic-Slav. accent from the prim. Indg., may be thus explained, rests with more accurate investigation to show.

It seems to me to be highly probable that the Balt.-Slav. innovations, as regards the position of the word-accent, were brought about in this latter manner, owing to the fact that the twofold quality of the Lith. syllabic accent is historically connected with that of Greek (§ 671), although this duality of the syllabic accentuation has directly nothing to do with the contrast between syllables with and syllables without the high tone (see p. 530).

It may be further mentioned that Baltic-Slavonic, like all other branches of languages, possesses old inherited enclitics. Lith. *nė-gi* 'not surely' *kàs-gi* 'who surely? who then?', O.Bulg.

1) The prim. Slav. and O.Bulg. form *vezq* was not in any case, it is true, the Indg. form **uěghō*, but a conjunctive form **uěghām* = Lat. *veham* (see § 219), which suppressed the indic. form. But this conj. form too had the accent originally on the root syllable and we may assume that the accentuation of the indic. and conj. forms was identical at that time of the prim. Slavonic period when the two forms were used indifferently i. e. shortly before the suppression of the indic. form.

ne-go ne-že, the strengthened comparative particle *ne* (cp. Skr. *ná* 'not' and 'even as'): Skr. *gha* in *ná gha* etc. O.Bulg. *mi* 'mihi' enclitic beside *mīnē*, like Skr. *mē* beside *māhyam*. Indefinite pronouns Lith. *ka-s* O.Bulg. stem *ko-* (nom. *kū-to*), e. g. Lith. *nē-kas* O.Bulg. *ni-kūto* (dat. *ni-komu*) 'nobody'.

§ 691. Baltic.

The accentuation of Prussian is not known.

Lettic always accents the first syllable, and it is clear that this accentuation is younger than the Lith. free accentuation. The syllabic accent is of a twofold character. We have to distinguish between broken ('gestossen') and lengthened ('gedehnt') tone; for further information see Bielenstein *Die lett. Sprache* I 32 ff.

Lithuanian accentuation seems on the whole to be the unchanged continuation of that of prim. Baltic.

It is essentially expiratory throughout, as it seems, the whole sphere of the language. The musical accent does not however play a subordinate part.

In certain Lithuanian districts the word-accent is thrown back on to the initial syllable. This phenomenon is apparently most widely spread in the Memel dialect, and in this case it might perhaps be due to the influence of the Lettic dialect (des kurischen Dialektes). In the other dialects, e. g. that of Godlewa (see Brugmann *Lit. Volksl. u. Märch.* p. 295), such influence cannot be assumed, except in case that the eastern, little known dialects similarly share in the change, and thus a geographical communication with the area of the Lettic language be established.

Frequent elaborate attempts have been made to explain the differences of syllabic accentuation, which is either broken ('gestossen') or slurred ('geschliffen' better 'schleifend'). But the descriptions of these differences differ materially from one another, so that it is not easy to form a correct picture from them. The chief points are as follow :

1. Short syllables have always the same single-pointed accent, e. g. *bù-tas* ('house'). Syllables, in which a tautosyllabic liquid or nasal follows the short vowel, form an exception to this

rule; these sound-combinations stand on the same level as the diphthongs (*ai* etc.).

2. In long syllables, that is, in such as contain a long vowel or short vowel + *i*, *u*, nasal, liquid, it makes a difference whether the moment of the greatest intensity of expiration falls on the first or last mora. In the former case we have the broken ('gestossen') accent, e. g. *bú|ti* ('to be'), *láu|kiu* ('I abide'), *vár|na* ('crow'), in the latter the slurred ('geschliffen'), e. g. *kū|das* ('thin, lean'), *tvā|nas* ('an overflowing'), *laū|kas* ('field') *viļ|kas* ('wolf'). No fluctuation seems to take place with broken accentuation, the voice-stress slackens steadily. On the other hand a secondary point seems to exist with slurred accentuation. Kurschat says of the latter accent, that a leap is made to a higher step, "so that such a vowel appears, as it were, compounded of two vowels of which the first is unaccented, the second accented", and that also a "falling" takes place between the first and the second step. The secondary point — which in any case is insignificant — is thus situated before the chief point. Sievers *Phonet.*³ 203. also indicates this accent as double pointed. Musically speaking the broken tone is a simple falling, the slurred either a simple rising (/) or a combination of a rising and a level tone (/ —).

Rem. The quantity of syllables was taken too little into account in the older investigations on Lith. accentuation. Baranowski and H. Weber in the *East Lith. texts* p. XV sqq. throw light on the relation of this to the accent. That which is published here is unfortunately only the beginning of a systematic exposition of the Lith. accentuation, so that in a work like ours it is only possible to take account of it incidentally. The chief points are as follow:

In Lith. a distinction is to be made between short, medium long and long vowels and syllables (˘, ˘˘, ˘˘˘). Liquids and nasals, which follow a vowel, can form one or two morae. The varieties of accentuation are caused by these differences of quantity, not conversely.

If no tautosyllabic liquid¹⁾ follows a middle long vowel, the accent always falls on the second mora of the vowel (˘˘), e. g. *tvā|nas*. Medium long syllables always have the slurred tone.

If a tautosyllabic short liquid follows a medium long vowel, the accent falls on the first mora of the syllable (˘˘˘), e. g. *vár-na*, as if *vā|nar|na*.

1) That which we have said here and in the following exposition of the liquids, also holds good of the nasals in all cases.

cf. Mod. Swedish

But if the vowel is short and the tautosyllabic liquid medium long, the second mora of it, that is, the third of the syllable, has the accent (◡◡◡), e. g. *var̥|das* ('name'), as if *var̥|das*. In the latter case a shifting of quantity took place in certain dialects, the vowel becoming medium long and the liquid short, *var̥|das* became *raar̥|das*.

Long vowels (◡◡◡) can be accented on the first (◡◡◡) and on the last mora (◡◡◡), e. g. *bū|ti* = *būuu|ti*, *sū|das* 'justice' = *suuu|das*.

If we apply these laws to the law of vowel shortening in final syllables, treated in § 664, 3 (p. 523), we have the following results: As **gerā* became *gerā*, the final syllable was deprived of two morae, ◡◡ became ◡. *anō* had a medium long vowel (◡◡) and retained it. In the transition of *gērs* to *geřs* ◡◡◡ (*éer*) first became ◡◡ (*ér*); but the medium long syllable did not tolerate this accentuation, ◡◡ necessarily arose, thus *geřs*.

We saw in § 664, 2 that *sēnas* 'old' *gēras* 'good' became *sēns gērs*. The second syllable being abolished as such and in the former case the *n*, in the latter the *r*, adding a mora to the preceding medium long vowel (◡◡), the result was first of all ◡◡◡. This accent position was not tolerated, there arose ◡◡◡, thus *sēns, gērs*. Has not also the dat. pl. *vilkāms* from *vilkāmus* been brought about in the same manner (cp. § 664, 2)?

If a short vowel was dropped in the last syllable which had the word-tone (§ 664, 1. 2), the syllable immediately preceding it received the word-accent in the shape of a slurred tone. This modification cannot have taken place in absolute finality. Loc. sg. *tojē* passed into *tōj*, instr. pl. *tomīs* into *tōms*, instr. sg. *akimī* into *akīm*, instr. pl. *akimīs* into *akīms*, *pirīmā* into *pirīm*. According to this the gen. sg. *akmeņs dukteřs* had arisen from **akmen-ēs* **dukter-ēs*.

It may be mentioned lastly that in nominal compounds, if the first member has the word-accent of the whole compound, the second member exhibits its own word-tone as secondary accent, e. g. *vuik-palaikis* 'a worthless young fellow' *isz-kekszinis* 'bastard child', and that likewise verbal forms, if they had the prefix *pér-* 'over, through', retain their own word-accent as secondary accent, e. g. *pér-lēkti* 'to fly over' *pér-važiūti* 'to ride through'.

§ 692. Slavonic. Since the accentuation of Old Bulgarian is not recorded and the phonetic changes of the prim. Slav. and O.Bulg. periods offer insufficient help for the determination of the accentuation (cp. § 281 rem. 3 extr.), we are obliged to

have recourse in the first instance to the Modern Slavonic dialects.

Of these Polish, Sorabian and Czech have given up the free word-accent. They accent all words in the same position; Polish has the accent on the penult, Sorabian and Czech on the first syllable.

Among the West Slav. languages Polabian preserved the movable accent, the material is here however of a limited nature. The languages of special importance are the South Slavonic languages (Servian-Croatian-Slovenian and Bulgarian) and the Russian dialects. These represent on the whole the prim. Slavonic accentuation. But it must be noticed that in the greatest part of the Servian-Croatian dialects, in the so-called Štokavian dialect (i. e. in the dialect, in which the neut. interrogative pronoun is *što*, in contrast to Čakavian, where this pronoun is *ča*), a shifting of the principal accent has taken place in such a manner that it was thrown back from its original position near a syllable from the beginning of the word, so that it only preserved its old position when it originally rested on the first syllable.

Thus e. g. on account of Russ. *nesú* Bulg. *nesŭ* Ser.-Štokav. *něsēm* (from **nesēm*) Rezian. *nēsā* we can deduce a final syllabic accentuation for O.Bulg. *nesā* and further for prim. Slav. **nesā*.

Rem. Many excellent treatises have been made on the accentuation of single Slav. languages and dialects. But a treatment on the whole Slavonic accentuation in general is still wanting, and since my knowledge of the modern Slavonic dialects is insufficient to undertake such a treatment and to be able to draw conclusions for the prim. Slav. period, I leave off with the above hints.

ADDITIONS AND CORRECTIONS.

- P. 10 l. 6 read **Manx** for **Many**.[?]
 p. 15 l. 6 read in for im.[?]
 p. 31 l. 8 read Germanic for Teutonic.
 p. 78 last line read *drōz* for *droz*.
 p. 94 l. 18 and p. 406 l. 19 (cp. also p. 95 l. 22, p. 274 § 354, l. 8, p. 350 l. 7 from the bottom) occurs the root *sqhai-*, *sqhai-* 'scindere'. Since Av. *scindayēiti*, which has been assigned to this root, belongs rather to *skenda-* 'blow' from **skanda-* (on the *i* in the root-syllable *scind-* cp. § 94 p. 89), while Av. *sid-* in the 3. sing. opt. perf. *hi-siḍ-yāh* 'might have torn, destroyed' corresponds to Skr. *chid-* (see Hübschmann Ztschr. d. deutsch. morgenl. Gesellsch. XXXVIII 424 f., Burg Kuhn's Ztschr. XXIX 358 ff.), the root must probably be put down with a palatal sound as *skhai-*, *skhai-* (cf. § 400) and Lith. *skėdrà skaistùs* be explained according to § 467 (cp. also § 414 rem.).
 p. 223 § 280 l. 2 read bordering for boarding.
 p. 224 last line but 4 read Low Sorab. for Low. Sorab.
 p. 288 l. 3 read **suekrù-* for **suekrû-*.
 p. 325 § 437 l. 1 read Ir. Brit. *b* initially and in the combination *ng*; and add O.Ir. *imb* 'butter' which by mistake has been put as an example to § 438^b) at the end of *a*) in § 437.
 p. 326 ll. 10—11 omit On what I cannot say.

ABBREVIATIONS.

- Ags. = Anglo-Saxon.
 cpf. = common primitive form.
 fr. = from.
 MHG. = Middle High German.
 OHG. = Old High German.
 OS. = Old Saxon.
 prim. f. = primitive form.



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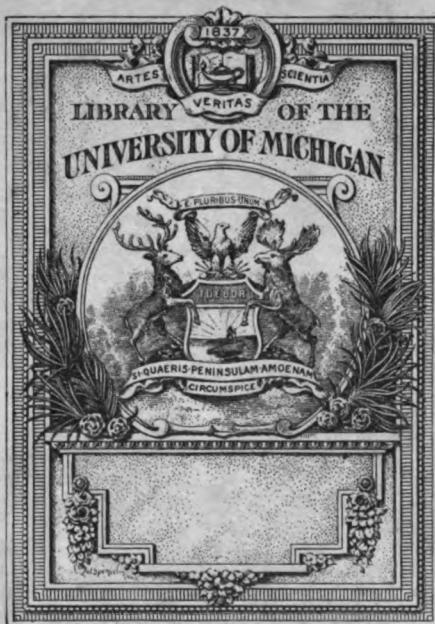
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Elements of the comparative grammar of the ...

Karl Brugmann



THE GIFT OF
Prof. Alex. Girvet

P
575
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v.2

A
COMPARATIVE GRAMMAR
OF THE
INDO-GERMANIC LANGUAGES.

A CONCISE EXPOSITION
OF THE HISTORY
OF SANSKRIT, OLD IRANIAN (AVESTIC AND OLD PERSIAN), OLD ARMENIAN,
GREEK, LATIN, UMBRO-SAMNITIC, OLD IRISH, GOTHIC, OLD HIGH GERMAN,
LITHUANIAN AND OLD CHURCH SLAVONIC

BY
KARL BRUGMANN,
PROFESSOR OF COMPARATIVE PHILOLOGY IN THE UNIVERSITY OF LEIPZIG.

VOLUME II.
MORPHOLOGY (STEM-FORMATION AND INFLEXION). PART I.

INTRODUCTION. NOUN COMPOUNDS. REDUPLICATED NOUNS. FORMATIVE SUFFIXES.
ROOT-NOUNS.

TRANSLATED FROM THE GERMAN

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TO

JOHN PEILE,

**DOCTOR OF LETTERS, MASTER OF CHRIST'S COLLEGE, THE FOUNDER OF THE
STUDY OF COMPARATIVE PHILOLOGY IN CAMBRIDGE**

THIS TRANSLATION IS DEDICATED

IN TOKEN OF THEIR GRATITUDE AND AFFECTION

BY

HIS OLD PUPILS.

148236

PREFACE TO THE ORIGINAL EDITION.

In consideration of the length to which the Second Volume of this Grammar was likely to extend it seemed desirable to publish it in parts¹⁾. Those which are still to appear will first complete the Morphology of Nouns and Pronouns, including the history of the Case-Endings. The latter section will be comparatively brief, since the ablaut of the inflexional syllables has been discussed in all its most important points in connexion with the Formative Suffixes. Then will follow the Morphology of Verbs (Stem-Formation and Inflexion), and finally a list of Additions and Corrections to the First Volume, [and an Index to both].

A third and last volume of smaller dimensions will contain the Syntax. In this part of Comparative Grammar very little work has been done, at least very little that can be called scientific, and hitherto no one has tried to give any systematic account of the subject as a whole. For a long while, I confess, I could hardly make up my mind to include it in the present work, but I have been greatly encouraged to make the attempt by the appearance of the fifth Volume of Delbrück's *Syntaktische Forschungen* (*Altindische Syntax* 1888), which, though it is not directly concerned with Comparative Grammar, has done a great deal to prepare the way for a general history of Indo-

1) The different parts of the German edition will appear as separate volumes in English.

Germanic Syntax. And in my work for the third volume I hope to have the help of O. Behaghel's *Grundzüge der germanischen Syntax* which has been announced for some time.

I have accepted as necessary one or two alterations in the transcription of Avestic; *ṣ* instead of *ṣ̌* (before *r*, see vol. I § 558 p. 415), *š* for all three signs *š̌*, *ṧ* and *š̈*. As regards these sibilants we ought still, in all probability, to make some distinction between the sounds in such words as *hištaiti* = Skr. *tīṣṭhati* (I § 556 p. 410), *mašya-* = Skr. *mārtiya-* (I § 260 p. 212 f., § 474 p. 350), *šyaoṣna-* = Protoethnic Aryan **cīaytna-* (I § 448 p. 333, § 473, 4 p. 350). I accepted with other scholars the theory which Bartholomae advanced in *Bezzenberger's Beiträge* VII 188 ff. as to the respective value of these three signs in the Zend alphabet, and, so far as I can see, it is not disproved by Geldner's recent edition of the Avesta. At the same time it is certainly not confirmed by the results of Geldner's work, and Bartholomae himself, with Hübschmann and others, now follows him in writing *š* indifferently in all cases. Thus I had no alternative.

In Celtic Prof. Thurneysen has given me the same generous assistance as in the first volume. My pupil Dr. W. Streitberg has helped me in correcting the proof. To both I may here offer my hearty thanks.

LEIPZIG, Oct. 1. 1888.

Karl Brugmann.

TRANSLATORS' PREFACE.

In the two years that have followed the translation of the First Volume of the *Grundriss der vergleichenden Sprachwissenschaft* by Dr. (now Professor) Joseph Wright, the difficulty of the task has sensibly diminished. The methods and the nomenclature of the scientific school of Comparative Philology have found their way more and more into the work of English teachers, and it has become far easier to decide what innovations can, and what cannot be reconciled with established usage. Such words, for example, as 'thematic', 'ablaut', 'analogical', 'contamination', 'proethnic' are completely naturalised. The last we have universally adopted as the clearest equivalent of the German *ur-* prefixed to the name of a group of languages: 'proethnic Greek' is Greek older than the rise of its various dialects; 'proethnic Indo-Germanic', or more simply where there is no ambiguity, 'the proethnic language' is the parent of the various families of Indo-Germanic speech.

On the other hand the new subject-matter of the present volume involves new difficulties. On almost every other page of the original the word *Grundform* is used to denote the original form from which any particular word has been developed by phonetic change, and considering the frequency of its occurrence we could see no alternative but to adopt it bodily into English. Again some such expressions as 'fertile' (*produktiv*) and 'extended' (*erweitert*) were indispensable to describe the history of the different suffixes. The process of deriving a feminine form

from the masculine stem of an adjective (Germ. *Motion*) we have called 'differentiation'. To express the change by which a substantival compound becomes an adjective, or in terms of Sanskrit grammar, by which a *karma-dhāraya*-compound becomes a *bahu-vrīhi* German scholars have created a new verb *mutieren*, i. e. the Lat. *mutare*; the word 'epithetised' which is used for the first time in this translation is an attempt to describe the nature of the change a little more explicitly. Thus in English *blackbird* is a simple or 'non-epithetised' compound, *Greatheart*, *rosy-fingered*, in Latin *magnanimus*, in Greek ῥοδοδάκτυλος are 'epithetised' (see p. 92). The ambiguity of the word 'formation' which like the German *Bildung* does double duty, to denote sometimes an abstract process and sometimes its concrete result, is a source of considerable difficulty, which might well be avoided by using such a term as 'formate' to express the second meaning; and the convenience of words like *trans-formate*, *re-formate* *afformate* (*Umbildung*, *Neubildung*, *Nachbildung*) is at once obvious. But the change is not absolutely necessary and therefore, since this is a book of general reference, it seems fairer to the reader to suggest it in the Preface rather than to introduce it directly into the text; perhaps however we may assume the licence in the following volumes.

A small but perpetually recurring difficulty of which the reader should be warned, has been the translation of the preposition *zu* in its technical sense, for which we have no exact equivalent in English, except such phrases as 'directly related to', 'connected in accordance with' and these would be, to say the least, a little wearisome, if they appeared twenty times on a page. It really covers several shades of meaning; in '*amāvi zu amō*' '*tulī zu ferō*' it means *used as a tense of*; in '*ansātus*' *zu ansa*', *a derivative of*; in '*modestus zu modus*', *used as a derivative of*; in 'Lat. *inclusus* zu Gr. κλῶν', *containing the root of*; and so on. The nearest English equivalent in the first two cases would be the preposition *from*, in which there is a more serious ambiguity, used as it is to denote both historical and logical connexion, '*tulī* from the root *tel-*', '*tulī* from *ferō*'.

Sometimes of course the two coincide, but only in the case of words of which the first was in use in the form in which we quote it before the second came into existence. *suavior* 'comes from' *suavis* historically as well as logically because it is a special formation in Latin (in place of the Indo-Germanic stem **suād-ijos-*); whereas the genitive *patris* can only be said to 'come from' the nominative *pater* in the logical sense, not the historical, since both are descended from proethnic forms. The rule therefore that we have adopted has been to write *from* in the logical sense only where there can be no possible doubt that that is its meaning; where there would have been any danger that the reader should infer from it a historical, derivative relation that was not implied in the German, we have used *beside*. Thus in the examples given above we should render '*tulī* from *ferō*' but '*modestus* beside *modus*' (see p. 418). The line is of course hard to draw, but for safety's sake, we have used *beside* in all cases of doubt. To do so universally, i. e. to have written always '*patris* beside *pater*' instead of 'from *pater*' seemed a little pedantic. On the other hand *from* has of course its proper derivative significance in such phrases as '*ansātus* from *ansā*', where in German *von* and *zu* are used indifferently. The German *aus* connecting a form with its immediate phonetic antecedent, e. g. 'Lat. *fissus* aus **fid-to-s*' we have followed prevailing usage in rendering by *for*, '*fissus* for **fid-to-s*'. The reader will find that *for* is used only in this sense of direct phonetic connexion; to describe an analogical substitution (Germ. *für*) we have regularly kept to 'instead of'.

In minor matters, such as abbreviations, and details of printing we have followed English rather than German precedent. For obvious reasons however we have retained the order of the original in such phrases as 'Gr. Att. *ἴππος*' 'Skr. Ved. *śray-iṣṭha*' (cf. p. 244), where they occur in a list of forms from different languages. But we have ventured to retain the symbol : which occurs on every page, and denotes that the forms that it connects stand in a definite relation to one another, and this, when it is not otherwise explained by the context, is always

one of regular phonetic correspondence; for instance it is invariably used to connect an Indo-Germanic form with the words which represent it in the derived languages e. g. Idg. **klu-tó-s*: Skr. *śru-tá-s*, Gr. *κλυ-τό-s* etc. A modification of this symbol, for which it was equally impossible to find a substitute, ':cp.' means 'partly related to' 'in some respects to be compared with'; it is employed where the forms compared are not completely parallel, but only to some extent, e. g. on p. 39, § 23 'Skr. *án-ápta-s*: cp. Lat. *in-éptu-s*'; here the two words are parallel, but not identical, as the Latin form is derived from **ap-tó-*, the Sanskrit from **ap-tó-*, see Vol. I § 97, 3 p. 91. Similarly on p. 60, § 34 'Lat. *sim-plex*: cp. Gr. *ά-πλόος*' implies that the compounds are parallel, but identical only in their first member; p. 193, § 75 Gr. *ήμέ-τερο-ς*: cp. Lat. *nos-ter*', that the use of the suffix is the same in both. It would be difficult to enumerate all the varieties of positive meaning that may be implied by this practically colourless symbol; to remove it altogether would be to re-edit the whole Grammar, not to translate it. The symbol : is also placed at the end of a general statement which is immediately followed by a list of illustrative examples, but otherwise it is not used as a mark of punctuation. On the other hand where the scientific brevity of the original made the connexion of the argument a little difficult to follow, so that sometimes the meaning of a whole paragraph turned on the significance of a comma or a bracket, we have felt less scruple in giving it more explicit expression.

In the first hundred pages and in the sections on the Meaning of the Suffixes, the reader will find a few additions to the text for which the translators are responsible. With Prof. Brugmann's permission we have inserted illustrations from Modern English beside his own from Modern German, where the latter are given to illustrate some general principle. These interpolations are all enclosed in square brackets.

At his request we have departed from Dr. Wright's usage in one important respect by using Old Church Slavonic instead of Old Bulgarian as the name of the language of the

Slavonic apostles Cyril and Methodius. We hesitated for some time between 'Welsh' and 'Cymric', but decided on the whole to keep the latter in conformity with the first volume. The Corrections and Additions' of the German edition are embodied in the text, together with several other minor alterations, mainly of misprints, which Prof. Brugmann has sent us. To him we would offer our hearty thanks for his constant help in matters of difficulty. We owe to Dr. Wright's courtesy a list of Corrigenda in Volume I.

The translation is a joint work throughout, but Mr. Conway is everywhere responsible for its final form, as Mr. Rouse will be in the remaining volumes, which we hope will follow the parts of the German edition as they appear, at much shorter intervals than has been possible so far.

The present volume has demanded a year's continuous work and a good deal of anxious consideration from us both. But we shall be more than rewarded if it can do anything to extend the share which English-speaking students can claim in the marvellous increase of exact knowledge which the book itself records. It is the boast of modern discovery to have made the world more thinkable and human life more full of meaning in a thousand ways; and before the century reaches its close, Comparative Philology, that is, the History of Language, will have attained no mean rank in the great sisterhood of sciences whose task is to explore the history of man.

R. SEYMOUR CONWAY.

W. H. D. ROUSE.

CAMBRIDGE, Aug. 1. 1890.

CORRIGENDA.

VOLUME I.

P. 112 l. 6 Read *the variation* instead of *the opposite*.

P. 350 last line but one. Remove the comma after *cases*.

P. 529 Rem. 2 l. 2. Read *velars palatals and dentals* instead of *lingual palatals*.

See also the footnotes to pp. 118, 167, 274, 367, 432, 434, 441 in Vol. II.

VOLUME II.

P. 153 l. 5 read *should perhaps* for *must ultimately*.

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SIGNS AND ABBREVIATIONS.

* prefixed to a form indicates that it is not on record, but only inferred from other forms in the same or kindred languages. Prefixed to a root it implies that that form of the root does not occur in any word of which we have record.

√ = root.

: = 'to be directly compared with'.

: ep. = 'to be in part compared with' (see the Preface, p. XII).

... after a form denotes that its final sounds cannot be exactly determined, (e. g. in **mēn-s-r*... p. 186 all that is said of the suffix is that it began with *r*).

α^z denotes a sound which was either *a*, *e*, or *o* but cannot at present be more closely identified.

A small figure added to the name of a book denotes the edition referred to; e. g. Paul, Princip.²

Hom. A, B, ... Ω = Hom. Il. book 1, 2, ... 24.

Hom. α , β , ... ω = Hom. Od. book 1, 2, ... 24.

ep. = compare.

lit. = literally.

orig. = original, or originally.

esp. = especially.

scil. or sc. = scilicet, i. e. the word which follows it is to be supplied in the preceding phrase.

ib. = ibidem.

loc. cit. = in loco citato.

Pr., O., Mid., Mod. prefixed to names of languages denote Protoethnic, Old, Middle, and Modern respectively.

poss. = possessive (adjectives).

dimin. = diminutive (adj. or subst.).

denom. = denominative (noun or verb). /

There remain the usual abbreviations of Gender (m. f. n.), Number (sg. du. pl.), Case (nom. gen. etc.), Degree (pos. comp. superl.), Mood (ind. impv. etc.), Voice (act. med. pass.), Tense (pres. impf. etc.) and Part of Speech (subst. adj. partic. sup(ine) ger(und) etc.).

It is unnecessary to add a list of the abbreviations for the names of the languages. The latter are fully enumerated in the Introduction to the First Volume (p. 4 ff.). Observe only that A. S. = Anglo-Saxon, O.Sax. = Old Saxon.

MORPHOLOGY: STEM-FORMATION AND INFLEXION.

§ 1. All the developements of language denoted by the terms Stem-formation and Inflexion are based upon one common principle, the juxta-position and more or less intimate fusion of elements which were originally independent¹. The units of speech produced by this kind of composition became in later ages the types on which new words were made; and many such standard forms, which were in use long before the dissolution of the proethnic Indo-Germanic community, still serve as models for new words. But this process of blending groups of independent words into single forms has been continually repeated all through the centuries; and thus new types have been successively evolved, to be in their turn the means of further developement. Yet these new types have never brought about any material change in the general method of forming words which had been adopted by the Indo-Germanic language in its proethnic stage. Certain primitive types, which were characteristic of the morphology of this family of languages, remained in constant use wherever they were spoken; and the forms which have arisen in later times, from the coalescence of words grouped in some syntactic relation, have always been cast in the mould of one or other of these prescribed models.

1) See Vol. I § 13. 14.
Brugmann, Elements. I

It is therefore the business of the grammarian, in this division of his subject, to exhibit these processes of composition, and the new formations to which their analogy gives rise.

In this department of the history of language, the main line of division is that which separates Noun and Pronoun on the one hand from Verb on the other. In dealing with the former class, we have to discuss terminations of Case, and the many different methods by which nouns or pronouns form their stems; in the latter class, we have to consider terminations of Person, and the equally numerous methods by which verbal stems are formed. These two departments, however, constantly overlap. Verbs are formed from noun-stems, as Gr. *τιμάω* 'I honour' from *τιμή* 'honour' Lat. *plantō* from *planta* ("Derivative Verbs"); and, on the other hand, nouns often contain verbal stems (for example, the so-called participles, gerunds, infinitives, and supines, e. g. Gr. part. *δῶσων* inf. *δῶσειν* as compared with *δῶσω* 'dabo'). Forms of this double nature are accordingly discussed in both divisions of Morphology.

In either case we shall begin with those words whose structure exhibits most clearly the principle of composition, which is the basis of the whole formative system of the Indo-Germanic languages; we shall begin, that is, with compounds in the common acceptation of the term, such as Gr. *ἵππό-δαμος* 'horse-taming' *ἀπο-βάλλω* 'I cast away'. Last of all will be treated those elements of words whose original independence is now least obvious, i. e. the signs of the cases on the one hand and the personal-endings on the other.

Throughout our discussion we shall consider both the forms as such and the meaning attached to them. Here we shall meet with questions of Syntax, which however includes too many heterogeneous elements to be fully treated in connexion with Morphology.

It is necessary first to offer a few remarks on the general principles of formation whose action can be traced in the history of Indo-Germanic. To a certain extent these will merely repeat in greater detail what has been already said in the General

Introduction (I § 13. 14) to explain the use of hyphens, and of a few special terms, which will be found in this work.

§ 2. When a group of words connected in some syntactical relation is fused into a single form, it is called a 'compound'; e. g. Gr. *Διόσκουροι* 'sons of Zeus' from *Διός* *σοῦροι*, Mod.H.G. *hungersnot* 'pressure of hunger' from Mid.H.G. *hungers not*, [Eng. *commonwealth* from *common wealth*]. The compound — to restrict the term for the moment to those consisting of two members — becomes a simple word when either its first or its second member has lost its connexion in the mind of the speaker with kindred words which are uncompounded, and consequently the comparative independence which it formerly had. This process may give rise to a word which to the speaker's consciousness is absolutely simple, e. g. Lat. nom. sing. *qui* for **quoi*¹⁾ i. e. **quo* 'who' + *i* (deictic particle, cp. Umbr. *po-ei* sing. 'qui' *pur-i* pl. 'qui'), O.Pers. nom. sing. *hauv* 'this' from **ha* = Skr. *sá* + the particle *u* = Skr. *ú*, Lith. *bú-k* 'be it, as though' which contains the particle *-ki -k*, Lat. *s-ub* no doubt for **(e)x-ub* (I § 568 p. 425); or else the element in question loses its full meaning, and being used with the same value in a considerable number of words is reduced to what is called a suffix or a prefix; as *-heit*, a suffix which forms substantives denoting a quality, found e. g. in *schönheit*, which originally meant 'beautiful condition' (in O.H.G. and Mid.H.G. *heit* is still an independent word), [Germ. *heit* = A.S. *had* Mid. Eng. *hōd* Mod. Eng. *-hood* in *maiden-hood* etc.], Lat. *-iter*, a suffix used in forming adverbs, e. g. *breviter*, which originally = *breve iter* 'short-way' (*iter* 'way'), O.H.G. *ala-* ('omni-') an intensive prefix, e. g. in *ala-festi* 'firmissime', Mod.H.G. *stock-*, also intensive, e. g. *stock-finster* 'pitch dark' *stock-dumm* 'utterly stupid' [cp. Eng. *stone-deaf*, *stone-blind*] (see Tobler, *Über die Wortzusammensetzung* p. 116 ff.). If a word is compounded with itself the process is called reduplication, e. g. Gr. *πάμ-ναν* 'en-

1) It is a moot question whether *goi* in the Duenos-inscription is *qui* or *cui*; see Zvetaieff, *Inscriptiones Italiae inferioris*, 1886, p. 80 sqq.

tirely'. Here also either of the two parts may be degraded by a process similar to that which gives rise to a suffix or a prefix; e. g. on the one hand Mod.H.G. *mur-mel* 'murmur' (Lat. *mur-mur*), where the termination *-mel* has the character of a suffix, and or the other hand Skr. *ci-kt-* 'comprehending, aware', where *ci-* is a kind of prefix.

§ 3. No hard and fast line can be drawn between a phrase or group of words connected in some syntactical relation, and a compound.

It is no doubt a fair definition of a compound to say that it is fully formed when the whole becomes in any way isolated from the parts of which it is composed as used independently (I § 13 p. 14). Lat. *māgnōpere*, for instance, was isolated from its component elements *māgnō opere* by its vowel contraction; Lat. *dēnuō*, from *dē novō*, by the weakening of *-ov-* to *-u-* due to its enclitic position; and Hom. *πᾶν-ῆμαρ* 'all day long' by the circumstance that the neuter **πᾶν* (for **παντ*) when used independently took a long *α* from *πᾶς πᾶσα*. In Gr. *Διός-χοροί*, in Lat. *plēbiscitu-m*, and in Mod.H.G. *gross-vater* 'grandfather', *süss-holz* 'licorice' the isolation was caused by the meaning of the whole being more definite and limited than the meaning conveyed by the mere syntactical grouping of the parts [cp. Eng. *best man*, *blackbird*]. Again in Attic Greek *ἀπο-βαίνω* 'I go away' *ἐκ-βάλλω* 'I throw out' Lat. *ab-eō*, *ē-jiciō* the cause (or rather one of the causes) was the restriction of each one of the prepositional adverbs to use within a particular series of combinations. Thus the causes of isolation, and of the accompanying change of a phrase into a compound, are very diverse and quite easy to appreciate. But isolation is a matter of very gradual development; and we cannot fix a point at which the phrase passes into the compound, least of all in ancient languages, where we cannot appeal for help to the consciousness of any living speaker. At every stage in the developement of language we find compounds in process of formation; and, naturally enough, it is often impossible to decide whether in any given instance a compound

is completely formed or not. Thus opinions may and do differ whether the spelling to be adopted is *δίφιλος* or *διὰ φίλος*, *καρηκομύωντες* or *κάρη κομύωντες*, and so forth, in Homer (see La Roche, Hom. Textkr. 311 ff.), *senātūscōnsultum* or *senātūs cōnsultum* in later Latin, and in Mod.H.G. *aus himmelshöhn* or *aus himmels höhn* (in Schiller, compare his phrase *an ufers rand*), *möglicherweise* or *möglicher weise*, *wenngleich* or *wenn gleich*.

Remark. According to a very common view, if a phrase is included under one accent, it is proved *eo ipso* to be a compound; but this is incorrect. In that case every syntactical combination of two words where the second word is an enclitic (cp. I § 669 p. 534 § 672 p. 538 and elsewhere) would be a compound, which no one would maintain. Nor can the formation of derivatives from a given phrase by means of secondary suffixes be taken as a certain proof that the group is a true compound (e. g. Gr. *Διοσκούρειον* from *Διός κοῦροι*). For the need of a derivative often creates a compound where the original is only a phrase; cp. Gr. *καλονόγαθιά* from *καλός νόγαθος*, Mod.H.G. *langweilig* from *lange weile*, [Eng. *freetrader* from *Free Trade*], Gr. *ἐνκεφαλος* adj. 'in the head' from *ἐν κεφαλῇ*, *παραδυλάσιος* 'situated by the sea' from *παρὰ θάλασσαν*, Skr. *anu-ṣatyá-s* 'consistent with truth' from *anu satyám* (cp. § 15), O.C.Sl. *obonŭ-polŭnŭ* 'situated on the further shore' from *obŭ onŭ polŭ* (§ 47). Thus a derivative of this kind, itself a true compound, may be formed while the original phrase is only on its way towards becoming one: cp. also Lat. *Sacraviēnsēs* as compared with *sacra via*; *quartadecumānī* as compared with *quarta decuma*, O.C.Sl. *petŭnadesetŭnŭ* 'fifteenth' compared with *petŭ na desetŭ* 'fifteen'; Avest. *aspa-vīra-jan-* 'striking horses and men down to the earth' compared with *aspa vīra* (a Dual combination, cp. § 27).

Where a compound consists of parts each of which can be used as an independent word, the following are the surest signs that it is a true compound: 1. If the termination of one member of the phrase is transferred to words which are incapable of taking it when uncompounded; e. g. when Gr. *διός-δοτος* (*διός* gen. sing.) gives rise to such a form as *δεός-δοτος* (cp. § 17). 2. If the case-ending or other inflexion of the first member, which was essential to the meaning of the original compound, loses its force in analogical formations; when for instance *Ἄρη-λυκος* (Hom.) *Ἄρει-θύσανος* 'fimbria Martialis' (Aeschyl.) are formed in imitation of *ἀρη-φάτος ἀρéléφάτος* 'slain in war'. 3. If the phrase is 'epithetised' (§ 50), as *ἀερί-οικος* 'having one's dwelling in the air', not 'a dwelling in the air'.

§ 4. It is equally impossible to draw a hard and fast line between a compound and a simple word. One part of a compound is reduced or degraded to a suffix or prefix,

or generally to an inflexional element, by losing in some way or other its connexion with the simple word in the consciousness of the speaker. This isolation may affect the meaning only; take e. g. the Lat. suffix *-iter* in *breviter longiter* and the like, which were originally compounds (for *breve iter*, *longum iter*, see p. 3 above), the O.Ir. intensive prefix *bith-* (originally 'world-' cp. *bith* 'world') in such forms as *bith-beo* 'semper vivus, immortalis' *bith-slán* 'semper salvus' etc.; or it may affect only the form, e. g. Mod.H.G. *-tel* in *drittel viertel* etc. as contrasted with *teil*; or it may affect both at once, e. g. Mod.H.G. *-lich* in *weiblich* (orig. = 'having woman's form') beside *leiche leich-dorn* [= Eng. *-ly* in *wife-ly* A.S. *lic*, Eng. *lych-gate*. The suffixes in *hat-red*, *friend-ship* *bishop-ric* etc. were independent words in Old English]. Isolation is most complete when the simple word passes out of use altogether, e. g. Gr. *ποδ-από-ς* Lat. *long-inquo-s prop-inquo-s*, the second part of which is the Skr. *-añc-* 'directed somewhither' (§ 163), Mod.H.G. *schön-heit*, whose second part was still an independent word in Mid.H.G.; the same thing has happened in the first part of a compound e. g. in Germ. *ala-*, as in Goth. *ala-mans* pl. 'all men' O.H.G. *ala-wār* 'quite true' (the only form used independently is *alla-*, for **al-no*). Thus even in the proethnic Indo-Germanic period the temporal adverb **e*, seen in such phrases as **é bherom* 'I bore' **é dŕkom* 'I saw' (Skr. *ábharam ádŕsam*, Gr. *ἔφερον ἔδρακον*), had no doubt sunk to the level of an inflexional prefix, because it was no longer used except in these combinations with enclitic preterite forms. Sometimes the conscious connexion with the simple word is lost because one member of the compound chances to resemble some common suffix in sound; the compounded word is then treated as equivalent to this suffix, and the whole becomes a simple word: for instance, Gr. *καθ-ίζω* 'I set down' (*ίζω* for **si-zd-ō*, *✓sed-*) was associated with verbs in *-ίζω*, as *πολεμίζω*, hence the fut. Att. *καθιῶ* Dor. *καθιξῶ*; O.H.G. *gom-man* (gen. *gom-mannes*) 'married man, man' was associated with simple nouns like *eban zeihhan*, hence such new formations as gen. sing. *gommanes* nom. acc. pl. *gommana*.

But in all these cases the change of function is very gradual; in every period we find compounded words in course of becoming simple inflexional elements. Compare further Skr. *úd-añc* 'upwards' *praty-āñc* 'backwards' *prāñc* 'forwards' and the like (see § 163, and observe their later association with the suffix *go-*, § 86); Armen. *-a-vor* in *lus-a-vor* 'clear' etc., corresponding to the Gr. *-φύρο-ς* (§ 28); Gr. *-ειδής* in *θεο-ειδής* 'godlike, divine' etc.; Lat. *-gn-o-* (cp. *gen-us*) in *benignu-s*, *malignu-s* and similar forms, *-ig-a-* (cp. *agere*) in *nāvigāre lūigāre flammigāre* and so forth (Leo Meyer, Bezzenberger's Beitr. VI 130 ff.); O.Ir. *-mār* (*mār* 'great') in *ardd-mār* 'very high' Mod.Ir. *buadh-mhar* 'victoriosus' (Glück, Kelt. Namen 77. 80 ff.), O.Ir. *-lach* (*slōg* 'troop') in *teg-lach* 'household, familia' *lucht-lach* 'the gens in toto, the district community' etc. (Zimmer, Kelt. Stud. II 25 ff.); Mid.H.G. *nīt-hart lūg-hart*, Mod.H.G. *aller-hand gewisser-massen* and *aller-best aller-meist*.

Remark. The reverse process does not often occur, i. e. when an element once a suffix or a prefix is raised in the speaker's consciousness to the dignity of a compounded word; but we find it e. g. in Mod.H.G. *leu-mund* 'repute, character' (popularly connected with *mund* 'mouth') = Skr. *śrō-mata-* (§ 82), *brō-sāme* 'the crumb of the loaf' (influenced by *sāme* 'seed') from O.H.G. *brōsma*, Avest. *yuvae-ca tāitē*, where the latter form was abstracted from *yuvae-tāt-*, and shows how the suffix *-tāt-* was regarded in the speaker's mind. (§ 102 Rem.). A further example is Mod.H.G. *wahn-sinn wahn-witz*, whose first part was the prefix *wan-* pr. Germ. **ṡana-* 'lacking, without'. [So the suffix in Eng. *wed-lock* has nothing to do with the verb *to lock*, nor that in *cray-fish* (from Fr. *écrevisse*) with *fish*. Similarly *rounde-lay* = Fr. *rondelet*].

It has already been pointed out in § 2 that the transition from a compound to a simple word does not always give rise to an element of the nature of a suffix or prefix. The following conditions are necessary for the production of an element of this kind: 1. the principal member of the compound must be etymologically clear; it must be associated with a kindred word or a kindred group of words: 2. the part so degraded must appear not in isolated words only but in a group of words, and in all of them it must have the same meaning: 3. this meaning must be more or less abstract and general

(Paul Princip.² 294). When these conditions are not fulfilled, the resultant forms may be called obscured compounds. To the speaker's consciousness they may appear absolutely simple words (apart from the endings of declension or conjugation which were ultimately affixed), as Mod.H.G. *welt* for O.H.G. *wer-alt* [Eng. *world*, A.S. *woruld*], Lat. *surgō* for **sub-regō*. Or even if they produce the impression of a word containing a suffix or prefix, it is only because their initial or final part has become associated with real suffixes and prefixes through some phonetic resemblance, e. g. Mod.H.G. *adler* for O.H.G. *adal-ar* (noble bird of prey), Mod.H.G. *wimper* 'eye-lash' for O.H.G. *wint-brāwa* 'wind-brow', Mod.H.G. *albern* 'foolish' for O.H.G. *ala-wāri*, 'very friendly' whose terminations resemble those of such words as *sattler*, *schneider*, *silbern* and the like [cp. Eng. *righteous* for *right-wise*, as though its formation were the same as that of *duteous plenteous*, *window* from Icel. *vind-auga* 'wind-eye' compared with *meadow fallow*, *scabbard* whose second part is identical with *-berk* in *hau-berk*, Mod.H.G. *berg-en*, not with the *-ard* of *poniard petard* etc.]. A third group consists of polysyllabic words like Mod.H.G. *bräutigam* (O.H.G. *brūti-gomo* 'bride-man') Lat. *ūsūrpō* 'I use' for **ūsū-rapō* [cp. Eng. *nightingale* A.S. *nihte-gale* 'singer of the night', *wiseacre* = H.G. *weissager*, *watershed* whose second part is Mid.E. *scheden* A.S. *sceādan* Mod.H.G. *scheiden*]. Here the second element has not become clearly associated with previously existing suffixes, while on the other hand such words as these are not conceived as absolutely simple. No general definition can express the way in which the instinct of the speaker regards them; each case must be treated by itself.

Obscured compounds undoubtedly existed as early as the proethnic period of Indo-Germanic; and in its later stages they are nowhere rare. The following examples may be assigned to the proethnic vocabulary: *syékuro-* 'father-in-law' (Skr. *śvāśura-* Gr. *ἐνυρό-ς* Goth. *svaihra*), **syéSOR-* 'sister' (Skr. *svásar-*

Lat. *soror* etc.)¹⁾, **viṣṭanti*- 'twenty' (Skr. *viṣatti*- Gr. *ἑξήκοντα* *ēkxonta* etc.), no doubt also **nizdo*- i. e. **ni-zd-o-* (√ *sed-*) 'settling place, nest' (Skr. *nīḍā-s* Armen. *nist* etc.), **per-ut(-i)* loc. 'last year', connected with Gr. *φέτος* (Skr. *parut* Gr. *πέπον* etc.), **pr-sto*- **pr-sti*- **per-sti*- 'prominence, something prominent' beside √ *stā*- 'stand' (Skr. *prsthā-m* 'prominent ridge, height, peak, top' L.Germ. and Dutch *vorst* f. O.H.G. *first* m. A.S. *first fyrst* f. 'roof-ridge'), **soy* 'this' i. e. **so* + the particle *u* (O.Pers. *hauv* Gr. *οὐ* in *οὐ-τος*), **nei* 'not' i. e. **ne* + the deictic particle *i* (Avest. *naē-ciš* 'no one' Lat. *nē* Lith. *neĩ*, cp. § 15). Even where this obscuration is found in more than one language it may often have arisen during the individual developement of the languages in question: e. g. Skr. *piḍāyami* 'I press' (pf. *pipīḍē*) for **pi-zd-*, Gr. *πιέζω* 'I press' for **pi-sed-*, originally 'sit upon'; Lat. *crēdo* O.Ir. *cretim* 'I believe' beside Skr. *śrād dadhāmi* 'I believe, trust' (cp. § 160, 1). Examples peculiar to single groups of languages are: Skr. *nēd-tyas*- Avest. *nazd-yah-* 'nearer' for **na-zd-*, originally either 'ἐπιζών, προσήμενος' (√ *sed-* 'sit') or 'approaching' (√ *sed-* 'go, move', Gr. *ὁδό-ς*). Skr. *bhiṣāj-* 'physician', no doubt to be resolved into *bhi-ṣāj-* 'conjuror, magician', cp. *abhi-ṣajati* 'he bewitches, curses'. Gr. *ἐκατόμβη*, cp. Skr. *śata-gu-* 'having a hundred cows'. *δεσ-πότης* originally 'lord of the house', *δά-πεδο-ν* originally 'house-floor', see § 160, 2. *ῥιπερό-ς* probably to be resolved into *ῥι-περό-ς* 'lying around', and compared with Skr. *ā-śēti*, see § 66. *ὅπως ὅπως* 'how (soever)', *ὅττι ὅτι* 'what (soever)' for **σφόδ πως, σφόδ τι*, cp. H.G. *sō hwōo*, *swie* 'howsoever' *sō hwer*, *swer* 'whosoever'. Lat. *sub super* for orig. *(*e*)*ks-upo* *(*e*)*ks-uper*, cp. Gr. *ἐξ-ὑπερθε*. *ap-eriō op-eriō* beside Skr. *ῥ-ṇōti* 'he moves something, makes away with it', with *apa* 'he makes away with, removes, opens'. *pergō* for **per-regō*. *surpuī* for **sub-rapuī*. *prōmō* for **pro-emō*. *noenum nōn* for **ne-oinom*. *superbu-s* for **super-fu-o-s*, √ *bheṣ-*, cp. Gr. *ὑπερ-φ-ίαλο-ς* I § 166 p. 147. Goth. preterite *frēi*

1) The *-sor-* in **syesor-* seems to have been a root-syllable, but the word appears to have attached itself to nouns like **bhrātor-* 'brother' **dōtor-* 'giver' (§ 119 ff.), just as Gr. *καθ-ίζω* was associated with *πολεμίζω* etc. (p. 6).

O.H.G. *frāz* 'he devoured' from pr. Germ. **fra-ēti*, O.H.G. *hiutu* O.Sax. *hiudu* 'to-day' beside O.Sax. *hiudiga* A.S. *heódæg* for **hiu-dgu* = Goth. *hia daga* 'on this day' (cp. Kluge, Paul Braune's Beitr. XII 376 f.). Mid.H.G. *bange* adv. 'anxiously' for **bi-ango*. Mid.H.G. *gunnen* for O.H.G. *gi-unnan* 'to give freely'. Mid.H.G. *niht* 'nothing' for O.H.G. *niwiht*, Goth. *ni vaihts* 'not a whit'. Mod.H.G. *umt*. Goth. *and-bahti*, [Eng. *huzzy* O.E. *hūs-wīf*.]

Obscured compounds of this kind will be treated along with the rest, although no doubt by this method words will often be classed together which were very differently regarded by the speakers of any given period.

Lastly, it should be observed that the terms Suffix and Prefix, particularly the latter, are sometimes used in the science of language with a far wider sense than that which has been here assigned to them. One of the members of a compound may be called suffix or prefix, as the case may be, simply because it appears with the same meaning in each one of a group of words. Thus we meet with such phrases as 'the compound *ἀπο-βαίνω* with the prefix *ἀπο*'.

§ 5. When one member of a compound has become a prefix or a suffix, the group of words which contains it generally creates similar forms, and is thus enlarged by analogy. The more general the significance of such an element, the more readily are words of the same type formed; take for example the extent to which *-heit-lich* (*mann-heit männ-lich*) have spread in Mod.H.G., and in Latin the future ending *-bō* (*calē-bō*), which is derived from Idg. **bhū-ō* (✓ *bheū-* 'become').

If a suffix or a prefix at a given epoch can be employed to produce new forms on the analogy of those already in existence, it is called fertile or living, and if not, barren or dead. Suffixes or prefixes which once had great vitality may die out, to be perpetuated only by memory in a certain number of examples, and no longer used for the formation of similar words. Thus the suffix *-ti-* (§ 99. 100), used in all the Indo-Germanic languages to form *nomina actionis*, was still fertile in protoethnic Germanic, but in the High German period was restricted to a

limited group of nouns, such as *zucht* 'breeding, discipline' *ankunft* 'advent' *geburt* 'birth'; its place has been taken principally by *-ung* (as in *schenkung* 'donation'), which still maintains its vitality. [In English it has been largely replaced by *-ness*, e. g. *drought dryness*, *dearth dearness*, *sloth slowness*]. In like manner the same suffix was dead in Latin by the beginning of the literary period (e. g. *messi-s*, *mors* stem *morti-*), and its place had been taken by *-tiōn-* (as *fissiō natiō captatiō*), which is fertile even in late Latin. Again, *-o-*, in Homer still a living conjunctive suffix for verbs in *-μι* (*ἴο-μεν*, *ἄλσ-ται*) came down to Attic Greek only in a few forms which had a future meaning, such as *ἔδομαι χέω*; in its place we find *-ω-*, which remained in active use throughout the classical period.

In a historical account of Indo-Germanic morphology this point must always be kept in view; and we are further bound to look for the reasons why one element used in forming words has died out and another taken its place. Thus for instance the suffix *-ti-* just mentioned fell out of use because it had split into several different forms by phonetic change; cp. Goth. *ansti-* *ga-baurþi-* *ga-mundi-* *ga-dēdi-* (pronounced *ga-dēði*) *ustassi-* (cp. § 100 under Germanic); so that the unity of the group was destroyed. But language always seeks like phonetic expression for like functions; and thus new suffixes of other and usually fuller form were preferred, and encroached more and more upon the old ones.

An adequate consideration of this aspect of Indo-Germanic Morphology is here impossible. Unfortunately the present position of the science of language precludes such an attempt, and, in any case, regard must be had to the due limits of this work.¹⁾

1) In monographs on Word-Formation full justice has been done to it; see e. g. K. von Bahder in his work 'Die Verbalabstracta in den german. Sprachen', 1880. I may record my complete agreement with the principles laid down in his Introduction (pp. 1—9).

§ 6. In § 2 reduplication was mentioned as one of the factors in the formation of words in Indo-Germanic. This subject also calls for a few preliminary observations.¹⁾

Here too we start from the juxta-position of two originally independent words. The same word is repeated twice or still oftener, to express repetition or lengthened duration of a process, or such ideas as universality and intensity. At every stage of the development of the Indo-Germanic languages, so far as they can be traced, we find this process going on; and it is undoubtedly as old as human speech itself. Now no hard and fast line can be drawn between the mere repetition of a word independently and the new single word arising from the coalescence of the original with its echo, if only because the aim of the repetition is nearly always such that the resulting form has the nature of a compound. Cp. Skr. *piba-piba* 'drink!' (Rgv. II 11, 11 *piba-pibéd indra śūra sōma* 'drink, drink the soma, mighty Indra'), *divē-divē* 'day by day', *prá-pra* 'on and on', *yáthā-yathā* 'howsoever'; Gr. *πάμ-παν* 'altogether', *προ-προ-κλινόμενος* 'rolling on and on' (Hom.), *μᾶλλον μᾶλλον* 'magis magisque', *πλέον πλέον* 'more and more'; Lat. *mane mane*, *audī* (Plaut. Asin. 229);

1) Compare: A. F. Pott, *Doppelung* (Reduplication, Geminatio) als eines der wichtigsten Bildungsmittel der Sprachen, beleuchtet aus Sprachen aller Welttheile, Lemgo und Detmold 1862. — G. Gerland, *Intensiva und Iterativa und ihr Verhältniss zu einander*, Leipz. 1869. — The Author, *Über die sogenannte gebrochene Reduplication in den indogermanischen Sprachen*, Curtius' Stud. VII. 185 ff. 273 ff. — H. Osthoff, *Über λαλ- und λιλ-*, zwei Fälle gebrochener Reduplication, *ibid.* VIII 449 ff. — Id., *Zur Reduplicationslehre*, Paul und Braune's Beitr. VIII 540 ff. — A. Bezzenberger, *Zur Beurtheilung der attischen Reduplication*, in his Beitr. III 309 ff. — H. Collitz, *Über eine besondere Art vedischer Composita* ['Iterativcomposita'], *Verhandl. des 5. internat. Orientalisten-Congresses II*, Berlin 1882, p. 287 ff. — Leo Meyer, *Vergl. Gramm. d. griech. und lat. Spr.* I² 1093 ff. — Hainebach, *De Graecae linguae reduplicatione praeter perfectum*, Gissae 1847. — R. Fritzsche, *Quaestiones de reduplicatione Graeca*, Curtius' stud. VI 277 ff. — C. Jacoby, *Die Reduplication im Lateinischen*, Danzig 1878. — E. Wölfflin, *Die Geminatio im Lateinischen*, *Sitzungsber. der bair. Akad.* 1882, p. 422 ff. — Fr. Diez, *Geminatio und Ablaut im Romanischen*, Höfer's Zeitschr. für die Wissensch. der Sprache, 1851, p. 397 ff. — A. Bezzenberger, *Zur Lehre von der Reduplication im Litauischen*, in his Beitr. I 252 f.

jam jam, semper semper, quis-quis, ut-ut, Ital. *colpo colpo, piccolo piccolo*.

In this way repeated words had been fused into single forms even before the inflexional period of the Indo-Germanic parent language; and there is nothing to prevent our referring immediately to this oldest type of reduplication any words in the descendant languages in which the whole root is repeated; e. g. Skr. *gár-gar-a-s* 'eddy' *dár-dar-ti* 'he shatters, breaks up', Gr. *ῥᾶρ-ῥαρ-ος* 'speaking unintelligibly' *ἄγ-αγ-εῖν* 'lead on', Lat. *quer-quer-u-s murmur*, O.C.Sl. *glagolŭ* 'noise, word' for **gol-gol-ŭ* (I § 281 p. 224).

Where, however, the reduplication is part of the structure of a simple word, full reduplication ('reduplicatio integra') is comparatively rare. As a rule there is hardly more than a suggestion of the repetition, 'reduplicatio mutila', e. g. in the perfect forms Skr. *ri-réc-a* Gr. *λέ-λοιπ-ε* 'he has left', Lat. *tu-tud-it*, Goth. *ga-rat-rōþ* 'he applied himself', and in Skr. *śī-śīr-a-s* 'cold, frost', O.H.G. *fi-faltra* 'butterfly'.

It is usually the former of the two syllables which has this abbreviated form. It is then regarded in the speaker's consciousness as a prefix, like the adverb *é*, the so-called 'augment' (cp. Gr. *ἔ-φενγον* : *πέ-φενγα*) and other degraded initial elements of compound words (reduplicatio praefixa). This mode of regarding it was supported by the unreduplicated forms which usually existed side by side with it; these the speaker's thought connected into one group (e. g. *πέ-φενγα* beside *φένγω φεύξομαι φυγή* etc.). Where the simple form corresponding to a reduplicated form had died out, or if it survived had lost all connexion with it in the mind of the speaker, the reduplication had not so clearly the stamp of a prefix; e. g. Skr. *jā-gar-mi* 'I watch', Gr. *Π-γᾶς* (*Π-γαν-*), Lat. *me-mor me-moria*, Skr. *da-dru-* A.S. *te-ter* Lith. *de-deroinė* 'pustular eruption'.

Less frequently the second element of the reduplicated form is debased ('reduplicatio suffixa'). The commonest example is what is called 'broken reduplication', e. g. Skr. *dar-d-ā-* 'eruption on the skin' Lat. *derbiōsu-s* for *der-d-ŭ-* (I § 170 p. 150) beside Skr. *dar-dar-a* 'burst' and the Skr. *da-dru-* etc. already mentioned,

Gr. *μορ-μ-ώ* 'bogie' beside *μόρ-μορ-ος* 'fear', *πόρ-π-η* 'needle, clasp' beside *περόνῃ* 'clasp' *περάω* 'I pierce', Lat. *bal-b-u-s* beside Skr. *bal-bala-karōmi* 'I speak stammeringly', *gur-g-es* beside *gur-gul-iō*, Lith. *mūr-m-iu* 'I growl' beside Lat. *mur-mur*. Here nothing of the nature of a suffix could arise because there were no clearly defined groups of words with which these single forms might have become respectively connected, as was the case in the reduplication of the perfect. Only where there was some accidental phonetic resemblance to an already existing suffix did the element of reduplication assume the character of a suffix; e. g. Goth. *val-v-ja* 'I roll' (resembling *ufar-skad-v-ja*): cp. Gr. *ἐλ-ελ-ίζω*; and this often occurred in examples of *reduplicatio integra* and of *reduplicatio praefixa* as well, if the last element happened to sound like some suffix: e. g. Mid.H.G. Mod.H.G. *murmeln* = O.H.G. *murmulōn mur-mur-ōn* (Lat. *mur-mur-āre*) like *lisp-eln schauk-eln hand-eln*; Skr. *cakrā-m* 'circle, wheel' Gr. *κύκλος* 'circle' A.S. *hweowol* 'wheel' (Idg. **qe-ql-o-*) like Skr. *abh-rā-m* 'cloud' Gr. *ἀθ-λο-ς* 'contest' A.S. *tunȝ-ol* 'star'; Mod.H.G. *zittere zittre* (for pr. Germ. **ti-trō-mi*) like *schnatt-ere schnatt-re zimm-ere zimm-re*; Mod.H.G. *thät* (for O.H.G. *te-ta*, reduplicated perfect) like *schau-t'*.

Remark. How are the types *de-der-* (*di-der-*) and *der-d-* related in their origin to the full form *der-der-*? First as regards *de-der-*, Pott and other scholars may be right in assuming that this is not a phonetic corruption of *der-der-*, but a mere 'suggestion' of the complete syllable, which was felt to be enough. *de-der-*, they maintain, is equivalent to *der-der-* in intention though not in fact, and there is no need to assume that such a form as *der-der-* preceded it. They point to such words in colloquial French as *mé-mère* 'little mother' *bé-bête* 'beastie' *Ba-barpe* 'Bab' (dimin. of 'Barbara') *Cha-chale* 'Charlie' as examples of the same principle. In single instances, however, phonetic change may have produced this type of formation, such a form as *der-dr-o-* becoming *de-dr-o-* by dissimilation. Again, in the process of broken reduplication different agencies may have been at work, and in any case the examples of this kind have not all the same history. Here too dissimilation may sometimes have been the cause; *der-d-o-* may stand for *der-dr-o-*. And sometimes *der-der-o* may have been unconsciously resolved into *derd-ero-*, and thus being associated with words of the same type as Skr. *pat-ara-* 'flying', may have given rise to new formations in which *derd-* was taken as the 'root'.

It should be remembered that we are here discussing only the ultimate origin of these different kinds of reduplication. When for instance such a form a *de-der-* had once been evolved it became a creative type, and the later examples (e. g. all extant reduplicated perfect forms) are — directly or indirectly — mere analogical formations, made on the model of those in which the genuine process of development had taken place.

We have still to mention one more resemblance between these forms and compounds in the strict sense. In reduplicated words, as well as compounds, the real nature of the form may be obscured in some way or another, especially by phonetic change, and the result is a word which the speaker supposes to be absolutely simple (disregarding of course derivative suffixes, and any case-endings that may be in existence at the time); e. g. Skr. *sēd-* (in the perf. indic. 1. pl. *sēd-imā* opt. 3. sing. *sēd-yā-t* = Avest. *ha-zd-yā-p* etc.) Lat. *sēd-* (in *sēd-imus sēd-are*) for Idg. **se-zd-* i. e. **se-sd-* from $\sqrt{sed-}$ 'sit'; Lat. *ser-ō* 'I sow' for **si-sō* cp. Gr. *ἴημι* for **σι-ση-μι*, $\sqrt{se-}$; Mod.H.G. *beb-t* = O.H.G. *bibē-t*, Skr. *bī-bhē-ti* 'he fears'; another example which must be as old as the protoethnic period is the perfect stem **ēd-* (1. pl. Skr. *ād-imā* Lat. *ēd-imus* Goth. *ēt-um*, Lith. part. *ėd-ęs*) for **e-ed-* from $\sqrt{ed-}$ 'eat'.

§ 7. Lastly, we must consider Vowel-Gradation (Ablaut, see I § 307 ff. p. 244 ff.) as a factor in the formation of Indo-Germanic words.

This appears in elements of all kinds: in root syllables, e. g. *i- eḷ-* 'go' Gr. *ἵ-αεν εἶ-μι*; in suffixes used to form noun-stems, e. g. *-tr- -ter-* Gr. *πα-τρ-ός πα-τέρ-ες*, or verb-stems, e. g. the present suffix *-nu- ney-* Skr. *ci-nu-mās ci-nō-mi*; in case-endings, e. g. the genitive ending *-s -es -os* Skr. *sūnō-ś* O.C.Sl. *nebes-e* (for **-es*) Gr. *νεφέ-ος*; in personal endings, e. g. 3. sing. *-ti -tai* Gr. *δίδω-αι δίδο-ται*; and in the *reduplicatio praefixa*, e. g. Skr. pres. imper. act. *ci-kiddhi* indic. med. (intens.) *cē-kitē* from *cit-* 'perceive'.

We saw in vol. I (loc. cit.) that vowel-gradation, a mechanical consequence of shifting accent, has quite as little to do with morphological differences of function as any other phonetic variations which arose within a given group of forms through

the action of what is called phonetic law. For instance, the *o*-form of ablaut which appears in the root-syllable of perfect forms like **de-dork̑-e* **le-loiq̑-e* (Gr. *δέδορκε* *λείλοιπε*), as distinguished from **derk̑-* **leiq̑-* and **dɹk̑-* **liq̑-* in other forms of the verbal system, had originally no more connexion with the meaning of the perfect, nor had the *e*-form of ablaut, found in the formative suffix in the accusatives **pə-ter-ŋ* **mā-ter-ŋ* (Gr. *πατέρα* *μητέρα*) etc., as distinguished from *-tr-* *-tɹ-* in other cases, originally any more connexion with the notion conveyed by the accusative, than (say) the *σ* of the second persons *οἶσ-θα* *ἴσ-τε*, as contrasted with the *δ* of the 1. and 3. persons *οἶδα* *ἴδμεν* *οἶδε*, had to do with the distinction of persons. But the arbitrary phonetic differences produced by ablaut in the various groups of forms often acquired in time a special meaning, the particular phases of ablaut becoming closely attached to the particular idea conveyed by the whole word, and appropriated to this or that function in connexion with it. This is most clearly seen when such formative elements as had served, either solely or primarily, to distinguish the meaning of a particular form from that of other members of the same group, have been lost, thus leaving only the ablaut to indicate the meaning; e. g. Mid.H.G. 1. pl. pres. *binden* 'we bind' pret. *bunden* 'we bound' = Goth. *bindam* *bundum*, Idg. present stem **bhendho-* preterite stem **bhebhɯdh-*; Goth. acc. *aúhsan* dat. (loc.) *aúhsin* (nom. *aúhsa* 'ox') = Skr. *ukṣān-am* (*ukṣān-am*) *ukṣān-i*; Goth. acc. *fadar* *brōþar* dat. *fadr* *brōþr* cp. Gr. *πατέρα* *πατρο-ί*. Thus even in proethnic Indo-Germanic the vowel-grade *-tēr-* e. g. **pətēr* 'father' (Gr. *πατήρ*) had become in the nom. sing. the chief exponent of the special meaning of the case, as opposed to the voc. sing., Gr. *πάτερ*, and differences of ablaut like *δέρκοιτο* *δράκοι*, *λείποι* *λίποι* had become connected with different kinds of action (continuous as opposed to momentary). In the same way other phonetic differences which had arisen accidentally became the exponents of different meanings. For example, in the masculine *i*-declension in Old High German it so happened that the whole plural had come to have the modified vowel: *gesti* etc. as opposed

to the sing. *gast*. The cases of the plural had originally been sufficiently distinguished from the singular by other means. But later on final *-e* was lost in Upper Germany, and partly so in Central Germany; and hence the modified vowel became, and still is, the sole sign of the distinction of number in the nom. and acc.: sing. *gast* pl. *gest* (*gäst*). Afterwards on this analogy *täg* was formed as a plural for *tag*, and *ärm* for *arm* etc.

In this way a definite phase of vowel-gradation in the Indo-Germanic languages has often become the mark of some definite meaning; so that the relations of Ablaut are of special importance in any account of their morphology.

In accordance with what has been previously said (I § 310) we distinguish 'Strong' and 'Weak' forms in the elements of which words are built up. The weak form shows the vocalism of the Lower or Weak Grade of Ablaut, the strong form that of the Higher or Strong Grade, and in each class again there are differences, which in forms of the strong grade may be very considerable (cp. e. g. I § 311).

The simplest of all the phenomena of vowel-gradation are those which appear in the terminations denoting case and person.

In the formation of stems, especially those of nouns, very complicated relations have sometimes arisen, chiefly because the original differences of gradation have been readjusted in course of the various processes of 'levelling' which the forms have undergone in one direction or another. Some such readjustments must have taken place soon after the differences in gradation had first appeared, i. e. long before the protoethnic language had broken up; and since then the process has been continually repeated. In this branch of our enquiry we can scarcely hope for anything like complete success in investigating the original distribution of the different phases of Ablaut.

Yet in a considerable number of groups of forms we have attained to a fair degree of certainty, and can even now reproduce, in all essential points, the vowel-gradation shown by the stem at the period of the first separation of the tribes. In many classes of noun-stems the formative suffix had Strong-Grade vocalism in

the nom. acc. voc. loc. sing., in the nom. acc. du., and in the nom. (no doubt also acc.) pl., e. g. Gr. *πα-τήρ* *πα-τέρ-α* *πά-τερ* *πα-τέρ-ι*, *πα-τέρ-ε*, *πα-τέρ-ες* *πα-τέρ-ας*; and in the other cases that of the Weak Grade, e. g. *πα-τρ-ός*, *πα-τρ-ῶν* *πα-τρά-σι*. And similar distinctions hold good to some extent in the stem-syllable of root-nouns, e. g. Skr. *pát* *pád-am* *pád-as* as opposed to *pad-é* *pad-ás* etc. The terms used to distinguish these forms are Strong and Weak Cases respectively; a more detailed account is reserved for the sections dealing with Case-formation. In the verbal system, the three singular persons of the active generally had the strong form, and the plural and dual of the active with the whole of the middle had the weak form; and indeed this difference appears equally in root-syllables, e. g. Gr. *ἐλ-μι* *ἴ-μεν*, in suffixes of Tense, e. g. Gr. *δάμ-νη-μι* *δάμ-να-μεν*, and of Mood, e. g. Gr. *ε-ἴη-ν* *ε-ἴ-μεν* (**ἔσ-ιη-ν* **ἔσ-ι-μεν*).

§ 8. We have seen in the foregoing pages that the Indo-Germanic formative system in all its branches is really based upon composition. This being the case, the task of systematic morphology is to exhibit, first the processes of composition which gave rise both to what are usually known as compounds, and to all formations containing elements of the nature of suffixes or prefixes; and secondly, the developement of the analogical formations which are associated with these. It is clear however that this task can only be very imperfectly accomplished.

The furthest point to which we can trace the past history of Indo-Germanic speech, without entering upon a region of the merest conjecture, is an epoch when, so far as we can judge, many elements originally independent had become so completely lost in composition as to show no vestige of their original character either in meaning or in form. The instinct of the language for the particular kind or kinds of composition by which these elements had assumed the shape in which we find them had by that time completely died out, and it is hence very probable that there had already been a good deal of shifting and displacement. It is therefore impossible for us to say whether any given formative element ever existed independently in

precisely the form which it has when we remove it from its surroundings, or whether one or other of its sounds may not have been a later accretion which originally formed no part of it (cp. Mod. HG. *-keit*, I § 14 p. 16, [Eng. *-ology* in *ge-ology*, cp. *theo-logy*], Lat. *-cētu-m* in *būcētu-m busticētu-m*, which was abstracted from such forms as *nuc-ēu-m ilic-ētu-m*). By that time, too, hundreds of complex forms may have become simple units both in use and in appearance, so that, strictly speaking, we cannot be sure that any one formative element which we regard as a unit in morphology was really a simple form to start with. In modern times we are not in a position to determine what the actual processes of composition may have been — they were certainly many in number — whose work began and ended before the proethnic community was dissolved: all that can be done is to accept as data their after effects, direct and indirect. I would take this opportunity of once more calling attention to a point on which I have already laid stress (vol. I p. 17 f.). The formative elements which date from the proethnic period we call by such names as 'root', 'suffix', 'prefix'; but this does not imply that they were originally independent words. Thus the division of a word by hyphens, e. g. **seq-e-taḱ* (Gr. *ἐπ-ε-ται* Skr. *sác-a-tē*), merely indicates the parts which the speaker probably regarded respectively as the kernel of a whole group of forms (*seq-*), or as a formative element used in different words with the same special function (*-e-* and *-taḱ*).

Among the forms that serve to show the method of formation which prevailed in the parent language there are comparatively few in which we can feel sure that our analysis actually agrees with the original process of composition, so that the hyphen really marks the point where the word originally divided. We feel most confidence in analysing reduplicated formations like Skr. *dár-darti*; next, in the case of the augment, e. g. **é-dḡkom* 'I saw' (Gr. *ἔ-δρακον*); and the same may be said of some of the personal endings, as *-mi -maḱ, -ti -taḱ*, e. g. *eḱ-mi* 'I go' (Gr. *ἐλ-μι*), since these are no doubt connected with **me-* 'I' **to-* 'the, that'.

The case is different with later compounds formed after

the first division of the language had taken place; e. g. Skr. *ekacittī-bhavanti* 'they become of one mind' Lat. *calē-bō* for **calē fūō*. Here, unless the contrary is expressly stated, our hyphens always imply the assertion that in the case of the oldest examples of any formation which gave the type for the whole group, each of the parts thus separated was once really an independent word.

Remark 1. Of late years much labour and ingenuity has been spent in the attempt to determine the original form of Indo-Germanic 'roots', especially since the publication of de Saussure's suggestive *Mémoire sur le système primitif des voyelles* (Leipz. 1879). This subject, important as it undoubtedly is, I must dismiss with only a reference in passing, because of the grievous uncertainty of the theories hitherto advanced; nor do I wish to suggest to the beginner that he need at the outset give any special attention to the question. I still feel wholly uncertain whether Idg. **agē-* (Gr. pres. ἄγε-τε ἄγο-μεν, subst. ἄγῃ ἄγός-) was earlier or later than **ag-* (Gr. ἄν-ακ-τός-) and Idg. **gen-* (Skr. *jani-tār-*) than **gen-* (Skr. *jān-man-*), whether the shorter form came from the fuller or whether the latter was derived from the former by the addition of *-e-* *-o-* and *-a-*. The relation of Idg. **plē-* (Lat. *plē-nu-s*) to **pel-* (Goth. *fil-u* Skr. *pi-par-ti*) is also quite obscure. **plē-* may be regarded as standing for an older form **pelē-*, and its *-ē-* as an element not originally belonging to the root. But we may equally well regard **pelē-* as the original simple root-word from which all shorter forms have been derived. The authorities are cited by Hübschmann, *Das indogerm. Vocalsystem* p. 181 ff., Johansson, *De derivatis verbis contractis linguae Graecae* p. 82 sqq. 93 sqq., Bezzenberger, *Götting. gel. Anz.* 1887 p. 417.

Remark 2. Another question much discussed is that of the so-called 'root determinatives'. Certain consonants frequently appear as the final sound of roots in a larger or smaller number of the words which belong to them. E. g. *-dh-* in Skr. *rā-dh-a-ti* 'brings about, prepares, satisfies' Goth. *ga-rē-d-an* 'to reflect upon something' O.C.Sl. *ra-d-iti* 'to reflect upon, care for' beside Lat. *rē-ri*, *ra-tiō* Goth. *ra-þjō* 'ratio'; Gr. *πύ-θ-ω* 'putrefy' beside *πύ-ov* 'pus'; O.C.Sl. *i-d-a* 'I go' beside Gr. *εἰ-μι* 'I go'; further, in the suffixes *-dh-ro-* *-dh-lo-* *-dh-mo-* (see § 77). *-s-* in **kleu-s-* 'to hear' Skr. *śru-ṣ-ṭi-ṣ* 'courtesy, readiness' part. *śrō-ṣ-a-māna-s* O.Ir. *cluas* 'ear' (I § 516 p. 377) A.S. *hlū-s-t* 'hearing' O.C.Sl. *slu-ch-ŭ* 'act of hearing, hearing' beside **kleu-* Skr. part. *śru-tā-s* Gr. *κλυ-τός* etc., and in **ten-s-* 'extend, stretch out' Skr. *tasāyati* 'he pulls this way and that' *vi-tasti-ṣ* 'span' O.H.G. *dinsan* 'to drag, trail' Lith. *tęsiū* 'I stretch' beside *ten-* Skr. fut. *taniṣyā-ti* Gr. *τενει* etc. The use of this *-s-* became widely extended in the Aorist and Future and also in Desiderative formations; it may also be etymologically connected with the *-es-* in Gr. *ξέν-* (*ξένω* 'I scrape, smooth' aor. *ξέσα-α*) beside *ξέν-* (*ξένω*) and *qes-* (Lith. *kas-aū* 'I scratch' O.C.Sl. *čes-ati* 'to comb, curry'); in *αβ-εν-* (*αβέν-ουαι* 'to quench') beside *αβ-η-* (*ε-αβη* 'was quenched') and *seq-* (Lat. *sēgni-s* etc.); in *u-es-* (Lat. *ves-ti-s*) beside *eu-* (Lat. *ind-uō*

Lith. *au-nù aũ-ti*), and many similar forms. *-eu- -u-* may sometimes be regarded in the same way, e. g. in *sveu-* 'flow' (Skr. *sdrv-a-ti* Gr. *ῥεῖ*) beside *sev-* 'move forward' (Skr. *sdrv-a-ti* 'goes, flows' Gr. *ὀρμή* 'haste, impulse'). There need be no hesitation in assuming that in such instances we are dealing with elements which were not originally integral parts of the primitive word, or 'root', and that therefore, in parallel forms which we find without them, they have not been lost, but simply never existed. The name we give them — determinatives, formative suffixes, or what not — is a matter of no importance. Their origin and their original value are obscure. Where, as *-s-* in the aorist, they have a definite grammatical function, they may be named accordingly. Thus I describe *-s-* in *ἔδρην-α-α* as an aorist-suffix, although I take it for granted that this element had originally nothing to do with the meaning of the aorist; but in doing so I imply no more than in calling e. g. *-mini* in Lat. *legimini* (= *λεγο-μενοι* § 71) a suffix of the second person plural.

FORMATION AND INFLECTION OF NOMINAL (AND PRONOMINAL) STEMS.

§ 9. Our discussion so far has led us to the conclusion, that in the Indo-Germanic languages the first step towards a complete inflexional system is to be seen in the nominal compounds whose first member is an uninflected stem, and reduplicated nouns in which neither of the two members has sunk to the level of an inflexional element; that is, if we consider them apart from their case-suffixes and from any further derivative elements or other particles which may have become attached to them. It seems appropriate, then, to begin our account of the Morphology of Nouns, by treating first of Compound Words and of Reduplicated Forms.

COMPOSITION OF NOUNS (NOUN-COMPOUNDS).¹⁾

THE COMPOUNDS CONSIDERED IN RESPECT OF THEIR FORM.

§ 10. We may distinguish four classes of compound forms:

I. Compounds whose first part is the stem of an inflected noun or pronoun, e. g. Gr. *μυρο-γενής* compared with *μύρο-ς*;

1) F. Bopp, Vergleich. Gramm. III³ § 962 ff. F. Justi, Über die Zusammensetzung der Nomina in den idg. Sprachen, Göttingen 1861.

II. Compounds whose first part is a word which never admits of inflexion in any period of the history of the Indo-

L. Tobler, *Über die Wortzusammensetzung nebst einem Anhang über die verstärkenden Zusammensetzungen*, Berlin 1868. F. Meunier, *Les composés syntactiques en Grec, en Latin, en Français etc.*, Paris 1872. G. Meyer, *Beiträge zur Stammbildungslehre des Griech. und Latein.*, Curtius' Stud. V 1 ff.; *Die Dvandva-Zusammensetzung im Griech. und Latein.*, Kuhn's Ztschr. XXII 1 ff. L. Schroeder, *Über die formelle Unterscheidung der Redetheile im Griech. und Latein. mit besonderer Berücksichtigung der Nominalcomposita*, Leipz. 1874; *Die Accentgesetze der homer. Nominalcomposita*, dargestellt und mit denen des Veda verglichen, Kuhn's Ztschr. XXIV 101 ff. H. Osthoff, *Das Verbum in der Nominalcomposition im Deutsch., Griech. Slav. und Roman.*, Jena 1878. The Author, *Erstarre Nominative*, Curt. Stud. IX 259 ff. — Aryan: W. D. Whitney, *Sanskrit Grammar* § 1246 ff. R. Garbe, *Das Accentuationssystem des aind. Nominalcompositums*, Kuhn's Ztschr. XXIII 470 ff. F. Knauer, *Über die Betonung der Comp. mit „priv.“ im Sanskrit*, *ibid.* XXVII 1 ff. F. Spiegel, *Gramm. der altbaktr. Sprache* p. 102 ff. F. Justi, *Handb. der Zendsprache* p. 377 ff. F. Spiegel, *Altper. Keilinschr.*² p. 171. — Greek: D. Pezzi, *La lingua greca antica*, 1888, p. 169 sqq. R. Roediger, *De priorum membrorum in nominibus Graecis compositis conformatione*, Leipz. 1866. W. Clemm, *De comp. Graecis quae a verbis incipiunt*, Giessen 1867; *Die neuesten Forschungen auf dem Gebiete der griech. Comp.*, Curt. Stud. VII 1 ff. F. Heerdegen, *De nominum compositorum Graecorum inprimis Homericorum generibus*, Berl. 1868. G. Meyer, *De nominibus Graecis compositis*, Breslau 1871; *Zur griech. Nominalcomposition*, Curt. Stud. VI 247 ff. K. Zacher, *De prioris nominum compositorum Graecorum partis formatione*, Halle 1873; *Zur griech. Nominalcomposition*, Breslauer philol. Abhandlungen I, Breslau 1886. F. Fügner, *De nominibus Graecis cum praepositione copulatis capita selecta*, Leipz. 1878. O. Neckel, *De nominibus Graecis compositis quorum prior pars casuum formas continet*, Leipz. 1882. R. Schroeter, *Quas formas nominum themata sigmatica in vocabulis compositis Graecis induant*, Köthen 1883. For other references see E. Hübner's *Grundr. zu Vorlesungen über die griech. Syntax*, p. 29 ff. — Latin: R. Kühner, *Ausführl. Gramm. d. latein. Sprache I* p. 693 ff. F. Stolz, *Die latein. Nominalcomposition in formaler Hinsicht*, Innsbruck 1877. F. Ulrich, *Die Composita bei Plautus*, Halle 1884. F. Skutsch, *De nominum Latinorum compositione quaestiones selectae*, Neisse 1888. For other references see E. Hübner's *Grundriss zu Vorlesungen über die latein. Gramm.*² p. 43 f. — Keltic: J. C. Zeuss, *Gramm. Celt.*² p. 853 sqq. — Germanic: J. Grimm, *Deutsche Gramm. II* (1878) 303 ff. F. Kluge, *Verbalpartikeln in der Zusammensetzung*, Kuhn's Ztschr. XXVI 68 ff. und 328, *Lautverschiebung in zusammengesetzten Worten*, *ibid.* 82 ff. J. Kremer, *Behandlung der ersten Compositionsglieder im german. Nominalcompositum*, Paul und Braune's

Germanic languages accessible to our investigation, and only appears in compounds, e. g. Gr. ἄ-βατος;

III. Compounds whose first part is an old adverbial word (with or without case-ending), which was also used uncompounded, e. g. Gr. ἐπί-θετος compared with ἐπι (ἐπι);

IV. Compounds whose first part is either a case-form which when it first entered into composition was a living member of some case-system, or an adverb which had only become such during the development of the separate languages, and had the force of an adverb at the time when it was compounded; e. g. Gr. Διός-κουροι and παν-αίολος.

No differences in principle are implied by this classification. It is chiefly intended as a convenient means of survey. In the course of the development of the different languages, the boundaries of the various classes often wavered considerably, and here and there new formations arose which departed widely from the type originally proper to their particular class.

Classe I and IV are often contrasted as 'genuine' and 'spurious' compounds. The latter are also called Juxtaposita.

Proethnic Indo-Germanic.

§ 11. Class I. This type of formation was certainly represented by a large number of examples in the Indo-Germanic period, although there are not many compounds which occur simultaneously in different branches of the derived lan-

Beitr. VIII 371 ff. Th. Storch, Angelsächs. Nominalcomposita, Strassb. 1886. — Balto-Slavonic: J. Kremer, Behandlung der Suffixe in der Fuge nominaler Zusammensetzungen im Litauischen, Bezzenberger's Beitr. VII 8 ff. C. Pauli, Die Composition [in Prussian], Kuhn-Schleicher's Beitr. VII 209 ff. A. Alexandrow, Litauische Studien I, Nominalzusammensetzungen, Dorpat 1888. — F. Miklosich, Vergleich. Gramm. II 347 ff.; Die nominale Zusammensetzung im Serbischen, Denkschr. der Wiener Akad. XIII 1 ff. Baudouin de Courtenay, Wortformen und selbst Sätze, welche in der polnischen Sprache zu Stämmen herabgesunken sind, Kuhn-Schleicher's Beitr. VI 204 ff.

guages, and therefore may reasonably be classed here. Several have a numeral for their first member; e. g. Skr. *dvi-pád-* Gr. *δί-πους* Lat. *bi-pēs* A.S. *twi-fēte* 'two-footed'; Skr. *tri-dánt-* Lat. *tri-dēns* 'three-toothed'; Skr. *śata-pád-* Lat. *centi-pēs* 'hundred-footed'. O.Pers. *hama-pitar-* Gr. *ὁμο-πάτωρ ὁμο-πάτριος* O.Icel. *sam-feðr* 'having the same father, a common father'; Gr. *ὁμό-γνιος* Goth. *sama-kunja-* see I § 142. p. 128. Avest. *pouru-nar-* Gr. *πολυ-άνωρ* 'rich in men'; Skr. *puru-dāsas-* 'rich in wondrous deeds' Gr. *πολυ-δῆνεα* *πολύβουλον*, *πολύμητιν* (Hesych.). Gr. *ᾠκύ-πους* Lat. *acu-pedius* 'swift-footed'; Skr. *āśu-pátvan-* Gr. *ὠκυ-πέτης* 'swiftly flying' Lat. **acu-piter*, which popular etymology changed to *accipiter*, as though from *accipiō*, and even to *acceptor*. Skr. *ṛg-mānas-* 'having the mind of a man', Gr. *Ἀνδρο-μένης*. Skr. *navajá-* i. e. *nāva* + *ajā-* 'driving ships, seaman', Lat. *navigō* 'I navigate' from **nāv-igo-* 'driving ships'. It is to be noticed that these formations scarcely ever correspond exactly; we have usually to suppose that analogy has modified the forms in the separate languages (e. g. Gr. *Ἀνδρο-μένης* instead of **ἀνδρα-*, see § 29).

§ 12. The termination of the first member.

Stems in *-o-* had *-o-*, cp. Gr. *ἵππo-δαμος* 'taming horses', (Gall. *Dēvo-gnāta* (*dēvo-* 'god'), Goth. *garda-valdands* 'master of the house', Lith. *gera-dėjis* O.C.Sl. *dobro-dějŭ* 'benefactor'. Whether *-e-* occurred as well as *-o-* (cp. Gr. *Ἀγέ-λαος* beside *ἀγός-*, see § 29. 30) is doubtful. The final vowel of the stem seems to have remained unchanged even where the second part of the compound began with a vowel: Skr. Ved. *yuktá-aśva-* 'who has horses yoked', O.C.Sl. *bělo-okŭ* 'white-eyed' (cp. also Pruss. *dago-augis* 'young sprig of a tree' *deina-algenika-mans* dat. pl. 'to day-labourers'), see I § 600 p. 453.

Stems in *-ā-*, in compounds formed in the separate families of language, sometimes end in *-ā-*, and sometimes have the same form as the *o-*stems. The former is frequent in Aryan and Greek, rare in Latin and Lithuanian: Skr. *urvara-jñt-* 'gaining arable land' Avest. *daēnā-vazah-* (proper name) from

daēnā- 'law, faith', Gr. *βουλη-γόρος* 'giving counsel', Lat. *faba-ginus* 'proceeding from beans', Lith. *sziksznó-sparnis* 'bat' (properly 'leather-winged creature'). The -o-form is not uncommon in Aryan and Greek; it preponderates in Latin and Lithuanian; and in Keltic, Germanic and Slavonic it is the only form found: Skr. Ved. *ukha-chīd-* 'breaking the pot' from *ukhā-*, Avest. *gaḍa-para-* 'wielding a club' from *gaḍa-* (= Skr. *gadd-*), Gr. *ἔλο-τόμος* 'felling timber' from *ἔλη*, Lat. *ali-pēs* from *ala*, Gall. *Teuto-bōdiacī* beside O.Ir. *tuath* f. 'people' ground-form **teutā*, Goth. *airpa-kunds* 'of earthly origin' from *airpa*, Lith. *galvā-raisztis* 'headband' from *galvā*, O.C.Sl. *glaro-bolije* 'headache' from *glava*. From these data I do not venture to draw any definite conclusion for the proethnic period. It seems to me, however, improbable that the transition from -ā- to -o- took place independently in all the different languages. Indeed it is certain that the latter was the regular form in proethnic Indo-Germanic when the compound consisted of an adjective + a feminine substantive: Skr. *priya-bhāryā* 'beloved wife', Gr. *ἀκρό-πολις* 'upper part of a city', O.Ir. *sen-mathir* 'old mother, grandmother' from **seno-* (cp. however § 39), O.H.G. *junc-frouwa* 'young lady' for **jungo-*, Lith. *jaunā-martė* 'young woman' *sen-motė* 'old mother, grand-mother' for **sena-* (cp. O.Ir. *sen-mathir*), O.C.Sl. *plūno-luna* 'full moon'.

Stems in -ī- and -ū- had -ī-, -ū- before consonants and *ij-*, *uy-* before sonants. Skr. *dhī-jāvana-s* 'exciting devotion, inspiring', *bhrū-kuṭi-ś* 'frown'. Skr. *śriy-aditya-* (man's name) from *śrī-*, Gr. *σύν-αγχος* 'choking swine' from *σύν-ζ*. Compare Skr. instr. pl. *dhī-śú* beside instr. sing. *dhīy-ā*.

Stems in -i-, -u-, nasals, liquids, and such of the stems in explosives as were declined with vowel-gradation had regularly the weak form of ablaut, from the proethnic period onwards, in compounds as well as in derivatives (c. g. Gr. *βαρυ-δαίμων* like *βαρύ-της*, Skr. *pitṛ-dēva-s* like *pitṛ-tva-m*).

Stems in -i- and -u- had -i-, -u- before consonants. Skr. *tri-pād-* Gr. *τρι-πους* Lat. *tri-pēs* A.S. *ðri-fēte* 'three-footed', Gall. *tri-garanus* 'with three cranes', Lith. *tri-kojis* 'creature with three

feet' O.C.Sl. *trǫ-zǫbŭ* 'trident, three-prong'. Skr. *agni-dhāna-m* 'receptacle for fire', Lat. *igni-fer*. Proper names containing **yesu-* 'good': Skr. *vāsu-rōciṣ-* Avest. *vohu-raocah-*, Gall. *Visu-rīx* (woman's name) O.H.G. *Wisu-rīch*. Skr. *paśu-pā-s* 'cattle-keeper' Goth. *faihu-friks* 'covetous' Gr. ἡδύ-(F)επής 'speaking sweetly' Skr. *svādu-rātī-ṣ* 'bestowing beautiful gifts', Lat. *manu-festus*, Gall. *Catu-rīges* ('battle-kings') O.Cymr. *Cat-mōr*, O.H.G. *Hadu-mār*, Lith. *virszū-kalnis* 'mountain peak'. Before sonants we find sometimes *-i(i)-*, *-u(u)-*, sometimes *-ī-*, *-ū-*, cp. I § 120 p. 111 ff. The first form is certainly original in such words as **tri-* 'three', **dru-* 'wood': cp. Skr. Ved. *trī(y)-aruṣa-* 'marked with red in three places', Gr. τρι-όχος 'three-branched', Lat. *tri-ennium*, Gall. *Tri-obris*, O.H.G. *dri-ortēr* 'triangulus'; Skr. Ved. *drū(v)-anna-s* 'having wood for food', Gr. Δρυ-οψ. Cp. further Skr. Ved. *hāri(y)-aśva-s* 'having golden-yellow steeds' *kṛṣṭi(y)-ōjas-* 'vanquishing the nations' beside *ahy-ārṣu-ṣ* 'falling upon dragons', *puru(v)-anika-s* 'having many semblances' *madhu(v)-ād-* 'eating sweet things' *bāhu(v)-ōjas-* n. 'strength of arm' beside *pulv-aghā-s* 'harming much' (examples with *-y-*, *-v-* — which alone occur in classical Sanskrit — are rare in Veda; see Edgren, Journal of the Amer. Orient. Soc. XI 71); Gr. βωτι-άειρα fem. 'nourishing men', πολυ-ιππος 'rich in horses'; O.C.Sl. has an isolated example, *medv-ědŭ* 'bear' ('honey-eater') from *medŭ* = Lith. *medū-s* 'honey'.

Stems in *-n-* may have sometimes had forms in *-ŷ-*, before consonants, and forms in *-n-* or *-ŷn-*, before sonants. *-ŷ-* may be inferred from Greek compounds like *κερή-δεμρον* 'head-band' for **kerā(σ)-α-*, ὀνομά-κλετος 'with famous name' (I § 224 p. 192). We may set beside them Lat. *nōmen-clātor* *nōmen-culātus* and Skr. compounds like *śīrṣa-bandhana* f. 'head-band' *nāma-dhā-s* 'name-giver', and also *vṛṣaṇ-vasu-ṣ* 'strong as an ox' (cp. *vṛṣaṇ-vant-* and *vṛṣaṇ-yāti-* for **uṛṣu-* I § 225 p. 192). As examples of *-n-* before sonants might be given Gr. ἀρν-ωδός 'singing for the prize of a lamb' (late), κυν-ωπιδ 'dog-eyed', Lith. *szūn-obūlei* pl. 'hawthorn' ('dog-apples'), and for *-ŷn-* Ved. *vṛṣaṇ-aśvā-* 'having stallions for steeds, drawn by stallions' (said of a chariot). Yet it is very uncertain whether those forms are the direct representatives

of original types. What we most commonly find is a substitution of *o*-stems for the stems in *-n*-, and this mode of representing the *n*-stems in composition appears to me undoubtedly proethnic. (Gr. *κίον-κεφαλήν* 'capital of a column' from *κίον*, *ἀνμό-θερον* 'anvil-block' from *ἄκμων*, *αἶμο-βαφής* 'dipped in blood' from *αἷμα*, Lat. *homi-cūda*, *sangui-sūga*, *numi-clatori* (inscr.), Mid. Ir. *talam-chumscugud* 'earthquake' from *talam* gen. *talman* (§ 37), Goth. *guma-kunds* 'of the male sex' from *guma* gen. *gumins*, *áuga-daurō* n. 'window' ('eye-door') from *áugō* gen. *áugins*; Skr. compounds like *śirṣa-bandhana* may also be classed here, and all the more confidently because such forms as Skr. *ukṣānna* = *ukṣa-anna* 'devouring oxen' (from *ukṣan*-) Avest. *zrvāyu* = *zrva-ayu* 'specified time' (from *zrvan*-) clearly show the type of the *o*-stems (cp. *yuktāśva*-). This substitution of *o*-stems for stems in *-n*- is obviously connected with a similar change in the final members of compounds, as Skr. *tri-parva-s* 'with three edges' from *pārvan*-, *priyā-dhāma-s* 'occupying a charming position' from *dhāman*-, Gr. *ἄ-περο-ς* 'boundless' beside *ἀ-πεῖρον* (stem **περφο-*), *ἄν-αιμο-ς* 'bloodless' beside *ἀν-αἷμων*, Lat. *ex-sanguis* for an older **ex-sanguo-s* (see § 93, under *Italic*) from *sanguen*, *sublīmu-s*, later *sub-līmi-s* (properly 'reaching up to the lintel') from *līmen*.)

Stems in *-m*-. Skr. *sa-kṛt* 'once' Gr. *ἄ-πλόος* 'single' Lat. *sim-plex*, Idg. **sm-*, from **sem*- 'unus' Gr. *εἷς* neut. *ἐν*. Gr. *δα-πεδον* 'floor in a house', then 'ground' generally, for **dm-*, from **dem*- 'house', see § 160, 2.

The Indo-Germanic type of formation in *r*-stems is shown in Skr. *pitr-śrávaṇa-s* 'gaining glory for one's father' and *pitr-artha* 'for one's father's sake'. Cp. also Gr. *τετρά-γνο-ς* 'containing four measures of land', from the Idg. stem **getuer-* (*τετρα-* = Idg. **getur-*, cp. I § 285), Goth. *brōþru-lubō* 'brotherly

1) No inference can be drawn from such Germanic examples as Goth. *háuh-hairta* 'haughty' beside *hairtan*- n. 'heart'. For even granting that stems like these had always been *n*-stems, the *a*-inflection must in any case have been forced upon them by the analogy of the strong declension of adjectives. Cp. Leo Meyer, Got. Spr. p. 247.

love' (? see § 40) and Gr. πατρ-ωνίμιο-ς 'named from the father', ἀνδρ-άγρια 'spoils of an enemy'.

Stems in *-nt-* had *-nt-*: Skr. *bṛhad-rathá-* 'having a great car', Idg. **bhr̥ghnt-*.

Stems in *-s-*. Gr. *μῦσ-φόνος* 'killing mice', Lat. *mūs-cipula* 'mouse-trap', Idg. **mūs-*. Stems in *-es-* no doubt had *-es-*: Gr. *σάκεσ-φόρος* 'shield-bearer', Goth. *sigis-láun* 'prize of victory', Skr. *rajas-túr-* 'hastening through the sky'. *-s-* no doubt occurred as well. cp. Skr. *mandhātár-* 'thoughtful, devout person' for **manz-dhatar-*, beside *mánas-* Gr. *μένος*. The use of *-o-* stems in their place, which is found in Greek, Latin, Keltic, and Slavonic (§ 29. 34. 37. 47, cp. also the Germanic, § 40 Rem. 5) may be an independent developement of the separate languages.

§ 13. The action of analogy produced many changes in what we must assume to have been the original forms of the initial members of compounds.

On the one hand, we find one kind of stem taking the place of another, e. g. a stem in *-o-* replacing a stem in *-i-*, as Slav. *gosto-* instead of *gostī-* (§ 47). We have just seen (in § 12) that changes of this kind arose even in proethnic Indo-Germanic. Thus it may well be the case that **dwi-* 'two' (beside nom. acc. du. **dwy-*: Skr. *dvāú* etc.) was formed in this period to correspond with **tri-* 'three' (cp. e. g. **dwi-pod-* 'two-footed' beside **tri-pod-*) just as Gr. *διᾱ-χόσιοι* was modelled on *τριᾱ-χόσιοι*, *πεντά-πους* (for *πεντί-πους*) on *ἑπτά-πους*, and so forth; a different explanation of **dwi-*, which does not seem to me convincing, is given by Bartholomae (Ar. Forsch. III 39). In the developement of the separate languages the use of *-o-* as the connecting link in compound words was especially frequent: hence this ending has been called the 'vowel of composition' ('Compositionsvocal').

On the other hand, the stem is sometimes replaced by a case-form (the compound thus passing into Class IV). Of this kind are new formations like Skr. *agrē-gá-s* (loc. sing.) beside

the more archaic *agra-ga-s* 'going at the head', Gr. *Πυλογενής* (loc. sing.) 'born in Pylos', Mod.H.G. *befehls-haber lands-mann* (gen. sing.) for the older forms *befelch-haber land-mann*. In this class also a few examples may be proethnic, cp. Skr. *aṣṭā-pad- aṣṭā-pada-* Gr. *ὀκτωί-πους* 'eight-footed', Lat. *octō-jugis* (Goth. *ahtáu-* seen in *ahtáu-dōgs* 'eight-day' (adj.) for **ahtō-*, following the uncompounded *ahtáu*) with the form of the nom. acc. du., and similarly, with the form of the nom. acc. sing., Gr. *ἐκατόμ-πους -πῆδος* Lat. *centum-peda* beside the more archaic Skr. *śata-pād-* Lat. *centi-pēs -peda* (cp. also Goth. *handa-faþs* 'centurio', Lith. *szimtu-kōjis* 'hundred-footed').

Remark. Cp. the occurrence of the *-ō-* of the nom. acc. du. in the case-endings Skr. *-ā-bhyām* Lat. *-ō-bus* (*duōbus*). Skr. *aṣṭa-* (seen in Ved. *aṣṭa-karṇā-* etc.) and Lat. *octi-* (seen in *octi-pēs* etc.) do not represent the Idg. stem **okto-*, from which the dual was formed, but they follow the analogy of *sapta-* and *septi-*, cp. Gr. *ὀκτα-* beside *ὀκτω-* in imitation of *ἑπτα-*.

The same substitution of case-form for stem is seen in certain derivatives formed by means of suffixes; examples of this are Skr. *tad-īya-s* 'belonging to that' *tad-vant-* 'provided with that' (*tā-d* nom. acc. neut.) *ki-yú-ṣ* 'desiring what?' (*ki-m* nom. acc. neut.), Skr. *divā-tana-s* 'diurnus' (*dīva* instr. sing. 'by day', § 69), Skr. *uccāis-tard-m* 'higher' (*uccāiṣ* instr. pl. 'high', § 75), Gr. *μυχοί-τατος* 'furthest back in the corner' (*μυχοί* loc. sing. 'in the corner, within', § 75), Gr. *ἰσίο-ς* 'powerful' (*ἰ-φι* instr. sing. 'with power, with might'), Lat. *extrē-mu-s* (**extrē-* adv., § 72, 2), Goth. *jái-n-s* 'that' (m.) (**ioḗ* loc. sing., § 66).

§ 14. Class II: Idg. **ṇ-* **ṇn-* 'un-', connected with **ne-* **nē* 'not' (Skr. *ná ná* etc.): Skr. *a-mṛta-s á-martiya-s* 'immortal' *aśvā-s* 'without horses', Armen. *an-gēt* 'unknowing', Gr. *ἄ-μῆροτος ἄ-μῆροσιος* (cp. I § 120 p. 111) *ἄν-ιππος*, Lat. *in-somnis* (Skr. *a-svapnā-s* 'sleepless'), O.Ir. *ē-tromm* 'not heavy, light', O.H.G. *un-ende* n. 'endlessness' (Skr. *an-antā-s* 'endless'), cp. I § 227 p. 194; and the parallel form **ṇ-* 'un-' = Gr. *νᾶ- νη-* etc., see I § 253 p. 207. Idg. **dus-* 'mis- ill-': Skr. *dur-manas-* 'illwill, malevolence', Armen. *t-gēt* 'unknowing', Gr. *δυσ-μενής* 'ill-disposed', O.Ir. *do-chruth* 'deformed, ugly' (from *cruth* 'form', the *c* being

changed to *ch* on the analogy of *so-chruth* 'beautifully formed', see I § 658 p. 510 f.), O.H.G. *zur-lust* 'wilfulness, illwill'.

These initial members of compound words may once have been independent adverbial words which were restricted even in the proethnic period to use in composition; just as Idg. **su* 'well' and **sēmi* 'half', which in Aryan still occur as independent words, in the other branches of Indo-Germanic only survived in compounds.

§ 15. Class III. This class may be split up into numerous subdivisions; only a few of them can be noticed here.

Adverbs used in the separate languages as verbal prepositions are compounded with verbal nouns. Idg. **ēpi-dhato-s* 'added': Skr. *āpi-hita-s* 'shut, enveloped' Gr. *ἐπι-θετος* 'added'. Idg. **āpo-qiti-s* 'expiation, punishment': Skr. *āpa-citi-ṣ* Gr. *ἀπό-τισις*. Idg. **ni-zdo-s* 'place for sitting down' (✓ *sed-*): Skr. *nīdā-s*, Arm. *nist*, Lat. *nīdu-s*, O.Ir. *net*, O.H.G. *nest*, see I § 590 p. 447. Idg. **peri-sroyo-s* 'a flowing round': Skr. *pari-srāva-s*, Gr. *περί-ρροος*. It was not before the period of separate development that adverbs of this kind were closely united with the finite verb, as in Gr. *ἐπι-τίθημι*, and it is clear that the older practice of compounding them with nouns gave considerable impulse to this tendency.

Remark. The group of purely verbal compounds then reacted upon the class of nominal compounds. It is true enough to say that e. g. Gr. *ἔξοχος*: 'eminent, prominent' is not a compound of *ἔξ* and *ῥχος*, nor Goth. *aflēts* 'remission, forgiveness' a compound of *afl* and *lēts*, but that those words are simple derivatives from the verbs *ἔξχω* and *aflēta* (J. Grimm, D. Gr. II [1878] 694, Zacher, Zur griech. Nominalcomp. 8); and there is after all good reason for adopting Zacher's name for them, 'pseudo-compounds'. But it must not be forgotten that in creating such forms the language is merely adding new examples to old classes, whose types have come down from the proethnic period, and that by far the greater number of the so-called compounds in the Idg. languages were certainly not formed by any real process of composition, but merely through analogical imitation of old typical forms; that is to say, they are only 'pseudo-compounds'.

Adverbs, used in the separate languages as prepositions governing a case, are compounded with nouns which are found governed by them; *ἐγκέφαλος* = *ἐν κεφαλῇ ὄν*. In the proethnic

period, when this group of forms began to develop, prepositional phrases like Skr. *ānu satyām* 'conformably to truth' Gr. *ἐν κεφαλῇ* 'in the head' Lat. *ante portam* can hardly, as yet, have become a recognised construction. The need of derivatives, however, had already given rise to compounds, exactly in the same way as in Mod.H.G. *lang-weilig* is derived from *lange weile*, in Lat. *Sacraviēnsēs* from *sacra via* etc. (cp. § 3 Rem. p. 4 f.). Then, the more firmly the prepositional construction established itself in the separate languages, the easier was it to form corresponding compounds, and the more freely were they coined. Skr. *api-karṇā-m* 'that which is situated by the ear, the region of the ear', Gr. *ἐπι-γαιος* adj. 'on the earth'. Skr. *upāri-martya-s* 'rising above mortals', Gr. *ὑπερ-άνθρωπος ὑπερ-ἥνω* (the same). Lat. *inter-vallum* 'that which is situated between two palisades (*inter vallos*), intermediate space', Skr. *antar-hastā-s* adj. 'in the hand'. Goth. *uf-áiþeis* 'under an oath, bound by an oath', Skr. *upa-kakṣā-s* 'reaching to the armpit'. Lith. *pér-galvė* f. 'that which is laid over or around the head, cowl', Gr. *περι-κέφαλον περι-κεφαλαῖα* 'head-covering'. It is noteworthy that Sanskrit and Greek agree in using as adverbs the acc. sing. neut. of these adjectival compounds, e. g. Skr. *praty-ākṣa-m* from *praty-ākṣa-s* 'lying before the eyes', *ati-mātrā-m* from *ati-mātrā-s* 'exceeding the proper measure', Gr. *ἐμ-πεδον* from *ἐμ-πεδος* 'situated on the earth, firm', *ὑπέρ-μορον* from **ὑπέρ-μορος* 'beyond destiny'.

The negative particles **ne*, **neḥ* (cp. O. Brugmann, *Über den Gebrauch des condicionalen NI in der älteren Latinität*, 1887, p. 32 f.), **mē* are compounded with the pronominal stems **qi-* **qo-*. **ne*: *nā-ki-ṣ* 'no one, nothing, not' (*ki-* instead of the regular *ci-*, see I § 448 Rem. p. 333). **neḥ*: Avest. *naē-ci-ṣ* 'none', Lith. *nė-kas* O.C.Sl. *ni-kŭto* 'none'. **mē* (prohibitive) Skr. *mā-ki-ṣ*, Gr. *μή-τις*.

§ 16. Class IV. Compounds of this kind do not appear in any great numbers until the later periods of the history of the languages. Of these, too, by far the greatest number are due to no real process of composition, but merely to the ana-

logy of already existing types. The following may be regarded as formations which had the character of compounds as early as the proethnic period.

The words for the tens from thirty upwards, as Gr. *τριάκοντα*, *τετρακάκοντα*, which have a nom. acc. pl. neut. as their initial member.

Idg. **duō-dekṃ* **duyō-dekṃ* 'twelve': Skr. *dvā-daśa* *duvā-daśa*, Avest. *dva-dasa* (with *a* instead of *ā*, following *dva*), Gr. *δύ-δεκα* *δυώ-δεκα*, Lat. *duo-decim* (with *o* instead of *ō*, following *duo*); compare Skr. *dvādaśama-s* Lat. *duodecimu-s* 'twelfth'. Idg. **tréjēz-dekṃ* 'thirteen': Skr. *trāyō-daśa*, Lat. *trēdecim* (I § 594 p. 450), Mid.H.G. *dri-zehen* (the sounds at the junction of the two words have been modified on the analogy of the two uncompounded forms, for *-zd-* would have become *-st-* in Germanic).

Remark. We may generalise so far as to assume that in proethnic Indo-Germanic there already existed compounds for all the numbers 11—19. Yet it must be noticed that the names of the numbers up to nine are not all genuine case-forms, e. g. Idg. **penge* 'five' seen in Skr. *pāñcadaśu* Lat. *quindecim* Goth. *fimftaihun*.

Possibly there were also in the Indo-Germanic period compounds containing case-forms of **diu-* 'heaven'; cp. Skr. *divō-rūc-* 'shining from heaven' Gr. *Δίος-δοτος* 'given by Zeus', Skr. *divi-jā-s* *divi-jāta-s* 'born in heaven'. The Greek compound *δεσπότης* 'master of the house', whose first member was the Idg. gen. **dem-s* (I § 204 p. 171 and § 160 below) may also have been inherited from the parent language.

To this class also belong such forms as Skr. *tad-vaśā-s* 'having a desire for that', Gr. *ποδ-από-ς* 'whence coming?' with the form of the nom. acc. sing. neut. See I § 228 p. 195 and § 163 below.

§ 17. The forms of this class, like those of Class I, gave rise to many analogical innovations. The most noteworthy of these is that the case-ending of the first member of the compound ceased to be regarded as a case-ending, and was used in composition with nouns which could not be joined with

it uncompounded; e. g. Gr. *ῥεόδωρος* (beside *ῥεός*, gen. *ῥεῶν*) on the analogy of *διός-δωρος*, Mod.H.G. *hilfstruppen* 'auxiliary force' (beside *die hilfe*, gen. *der hilfe*) on the analogy of forms like *hungers-not*. See § 24. 32. 44. 47.

§ 18. Compounds of all classes have been used from the earliest period as personal names¹⁾, and it must be assumed that even in the parent language this was the commonest method designating of persons.

It remained in living use amongst all the Indo-Germanic peoples except the Italic²⁾. Examples are: Skr. *áśva-mēdha-s* (*aśva*- 'horse'), *dur-mitrá-s* (*duṣ*- 'mis-'), *upa-diśa-s* (*upa* 'hither, this way'), *divō-dāsa-s* (*divás* gen. of *div*- 'heaven'); Gr. *Ἰππόμαχος*, *Ἀδμητος*, *Ὑπόδικος*, *Ἀρηλινκος*; Gall. *Dēvo-gnātu* (*dēvo*- 'god'), *Su-carus Su-caria* O.Bret. *Hu-car Ho-car* (*su*- 'well'. Skr. *sú*, *su*-, cp. I § 573 p. 430), *Ro-smerta* (*ro*: Gr. *ῥο*); Goth. *Austro-valdus* with Latinised termination (*austro*- 'east'), O.H.G. *Wolf-boto* (*wolf*- 'wolf'), O.H.G. *Un-forht* (*un*:- Gr. *α-*); Lith. *Vaisz-nor-s*, *Nor-buta-s*, *But-vila-s* (**vaisza-s* or **vaiszu-s* 'guest' cp. *vaiszinù* 'I receive as a guest, entertain', *nora-s* 'will', *bùta-s* 'house')³⁾, Pruss. *Buti-lubes* (*buta*- 'house') *Austi-gaudis* (*austa*- 'mouth') *Na-bute* (*na* 'after, in accordance with'), Serv. *Vuko-mir* (*vuk* O.C.Sl. *vlükū* 'wolf'), *Ljubu-mir* (O.C.Sl. *ljubŭ* 'dear').

These compounds had in many respects a peculiar history.

Amongst the Greeks and the Germanic peoples, it was a custom to insert in a child's name one of the words which were found compounded in the name of the father or the mother:

1) See in particular A. Fick, *Die griech. Personennamen nach ihrer Bildung erklärt, mit den Namensystemen verwandter Sprachen verglichen und systematisch geordnet*, Göttingen 1874.

2) And perhaps the Armenians. On the subject of personal names in Armenian I have received communications from Prof. Hübschmann, and I am satisfied that in the present state of our knowledge it can neither be affirmed nor denied that this people retained any genuine Indo-Germanic compound names. In the case of geographical names, however, the old principle of nomenclature may be said to be still fully in force.

3) In Lithuanian this mode of forming family names is now obsolete. Brugmann. Elements. II.

e. g. *Δίνο-κράτης* son of *Δίνο-κλῆς*, *Εὐ-κράτης* son of *Εὐρυ-κράτης*, *Ἀνδρό-νικος* son of *Νίκο-κλῆς*; in the 8th century A. D. we have *Walt-bert* son of *Wald-ram*, *Wald-bert* and *Wolf-bert* sons of *Hram-bert*, *Wine-gaudus* son of *Wine-burgis* (Stark, *Die Kosenamen der Germanen*, p. 159)¹). This explains the fact that words of the most heterogeneous meaning were often combined to form one name, as Gr. *Ἰππό-λας*, *Ῥόδ-ιππος*, O.H.G. *Wolf-dag*, *Fridu-gundis*.

One of the two compounded words was sometimes used alone as an abbreviation for the whole name (these are called 'Kurznamen' 'short names'), and suffixes expressing endearment were often added at the same time to this single stem. This practice of abridgement, which shows the same kind of linguistic thrift as we see e. g. in Mod.H.G. *bahn* = *eisenbahn*, *lager* = *lagerbier*, *soda* = *sodawasser*, *kilo* = *kilogramm*, *ein viertel neuen* = *ein viertel liter neuen weines*, in London slang phrases such as *zoo* = *zoological garden*, *pops* = *popular concerts*, *bus* = *omnibus*, and in Gr. *νᾶ*, *μᾶ* from *πατήρ*, *μάτηρ*², may be regarded as unquestionably belonging to the proethnic period. Skr. *dēva-s dēvaka-s dēvika-s dēviya-s dēvala-s dēvila-s* = *dēva-datta-s dēva-kṣatra-s dēva-śravas-* etc. Gr. *Ζεύς* *Ζευξιάς* = *Ζεύξ-ιππος* *Ζευξί-δαμος* *Ζευξί-θεος* etc. Gall. *Toutus Toutius Toutillus* = *Touto-bocio* O.Cymr. *Tut-ri* (cp. Gall. *Toutio-rīx*) etc. O.H.G. *Wolfo Wolfilo* (Goth. *Vulfila*) *Wolfin* = *Wolf-brand* *Wolf-braht* *Wolf-gang* etc. Pruss. *Bute Butil Buteko* = *Buti-labes* etc. Serv. *Vuk Vukoj Vukel Vukolin* = *Vuko-voj Vuko-mir* etc. (*vuk* = O.C.Sl. *vlükū* 'wolf'). This shortening was also effected by dropping the first member of the compound,

1) In Greek the influence of the father's name may be observed even in names consisting of single stems, the formative suffix being taken over to the new name, e. g. *Βεῖχ-υλλος* son of *Βᾶδ-υλλος*, *Ἰσχυμην-ισκος* son of *Φιλ-ισκος*. See J. Baunack, *Stud. auf dem Gebiete des Griech.*, I 1, 57.

2) The psychological side of this practice of abbreviation has been examined by Behaghel (*Die Deutsche Sprache*, p. 68 f.). It springs from the general tendency to leave unspoken whatever can be understood, or is at once suggested by the immediate context.

e. g. Gr. *Κλητός* = *Ἀνάκλητος* (a bishop in the first century), *Vulfus* = *Hun-ulfus*, *Scirorum primas*, saec. V, *Jornandes* c. 54.

Where this kind of abbreviation took place the feeling for the etymological structure of the compound was sometimes lost, and so the initial consonant or consonants of the second member remain in the curtailed form. Gr. *Νικο-μας* = *Νικο-μήδης*, *Δημο-σθας* = *Δημο-σθένης*, *Εὐ-χρος* = *Εὐ-χρηστος*, *Πολυ-ξώ* = *Πολυ-ξένη*. O.H.G. *Adal-bo* = *Adel-bero* and *Adelboldus*, *Sibo* = *Sibold Sigi-bald*, *Rat-po* = *Rat-poto*, *Thiemo* = *Thiet-mārus*, *Ercam-bius* = *Ercam-bertus*.

Remark. I do not know what view to take of the frequent strengthening of a medial consonant in abbreviated names in Greek and in Germanic; e. g. Gr. *Ξερνώ*, *Ἀγαθῶ*, *Δικαίω*, *Καλλο-ννώ*, *Κλεό-μμυς*, *Θεο-κκώ*, *Νικο-ττω*, *Κλεο-σθις*, O.H.G. *Itta* = *Ita-berga*, *Sicco* = *Sige-rich Sigi-bertus Sigi-fridus*, *Aggo* = *Ago-bardus*. Cp. Fick, *Die griech. Personennamen* p. LIX sq. and Bezenberger's *Beitr.* III 277 f., Baunack, *Studia Nicolitaina* (Lips. 1884) p. 47 f., and *Studien auf dem Gebiete des Griech.* I 1, 60, Stark, *Kosenamen* p. 19 ff.

The student should compare the examples of abbreviated names in other languages collected by R. Mowat, in his essay *De la déformation dans les noms propres* (*Mém. de la Soc. de Ling.* I, 171 ff.).

§ 19. Accentuation of Compounds. In languages where the free Indo-Germanic accentuation can still be observed, the position of the accent in compounds varies considerably in many ways, and it is certain that even in the proethnic period a complicated system had been developed. Certain principles, however, can be everywhere recognised, and must probably be assumed as holding good for that period.

1. Where the meaning was not 'epithetised' (§ 50) the compounds of Class I (see above) were usually oxytone if the second member was a *nomen agentis*: Skr. *radhra-cōdā-s* 'driving on the weary' (*cōdā-s* 'driving on') *aśva-hayā-s* 'driving on the steeds' (*hayā-s* 'driving on'), Gr. *ψυχο-πομπός* 'conducting souls' (*πομπός* 'conductor') *παιδο-τρόφος* for **παιδο-τροφός* (I § 676 p. 542 f.) 'nourishing children' (*τροφός* 'nourisher'). On the other hand, where the meaning was 'epithetised', the first member usually

bore the accent, no matter of what parts of speech the word was compounded: Skr. *hári(y)-aśva-s* 'having golden-yellow steeds' *hitranya-kēśa-s* 'golden-haired', Avest. *stehr-paēsah-* 'adorned with stars' = pr. Ar. **stf-paiśas-* (I § 260 p. 212, § 288 p. 229 f., § 674 p. 539), Gr. *βαθύ-κολπος* 'with deep, full bosom' *κλυτό-πωλος* 'having glorious steeds' *χαλκό-πους* 'bronze-footed' (as regards instances like *εὐρύ-ρέεθρος* 'with wide stream' for **εἰρύ-ρεεθρος*; see I § 676, 2 p. 541 and Wheeler, *Der griech. Nominalacc.* 43 ff.), A.S. *fyðer-fēte* 'four-footed' for pr. Germ. **fīpur-* (I § 529 p. 384 f.) like Skr. *cātuṣ-pad-*. Thus we find existing side by side forms like Skr. *rāja-putrá-s* 'king's son' and *rāja-putra-s* 'having kings for sons', Gr. *παν-τρόπος* 'turning all' (cp. *τροπός* 'turner, strap by means of which the oar is turned') and *πολύ-τροπος* 'of many wiles' (cp. *τρόπος* 'a turn') with many similar examples.

Remark 1. The exceptions to these rules still need careful investigation. Thus for example, Sanskrit compounds of *-pati-* 'lord', though they belong to the *immutata* or unepithetised class, accentuate the first member, as *gaṇḍ-pati-ṣ* 'lord of a troop' *púr-pati-ṣ* 'lord of a stronghold', and the *d* of Goth. *-fadi-* in *hunda-fadi-* 'leader of 100 men' points to the same accentuation, pr. Germ. **xundá-fadi-* (I § 530 p. 386 f.). May not this substantive have been originally a *nomen actionis* meaning 'rule, lordship' (cp. § 149), so that the compounds in question would originally have been *mutata* (epithetised)?

2. Compounds with **u-* **yu-* 'un-' accented this prefix if they were the same part of speech as their final member. Skr. *á-kumāra-s* 'non-boy, matured youth' (*kumārá-s*), *á-dīrgha-s* 'not long' (*dīrghá-s*), *á-kṣīta-s* 'imperishable' (*kṣītá-s*), *án-andha-s* 'not blind' (*andhá-s*). Gr. *ἄ-δωρα* 'gifts that are no gifts' (*δῶρα*), *ἄ-δηλος* 'not plain' (*δηλος*), *ἄ-q θιτος* = Skr. *á-kṣīta-s*, *ἄν-αλτος* 'insatiable'.

Remark 2. If the phonetic law for **i*, which was laid down in I § 226, is correct, Skr. *án-* and Gr. *ἄν-* must once have been regular even where the next part of the compound began with a consonant. In that case the unaccented *a-* *á-* of epithetised compounds like Skr. *a-lamás-* 'without darkness' Gr. *á-δ(f)ής* 'fearless', must have passed into more general use, thanks no doubt to the fact that before a sonant every **yu-*, accented and unaccented alike, regularly became *an-* *án-* (cp. *án-andha-s* and *an-énás-* 'sinless', *án-αλτος* and *án-αιδής* 'shameless').

3. Compounds consisting of adverbs + participles in *-to-*, abstract substantives in *-ti-*, or similar verbal nouns (Class III), had the accent upon the adverb, just as the corresponding forms of the finite verb in a principal clause threw back their accent upon the adverbs which qualified them (cp. I § 669 p. 534). Skr. *prá-ttu-s* 'given up' Gr. *πρό-δοτος* 'abandoned', Skr. *prá-tti-ś* Gr. *πρό-δοσις*; A.S. *frá-coð* Goth. *frá-kunþs* 'despised', O.H.G. *frá-tāt* 'transgression'. In Greek the accentuation followed new rules; thus we have *ἀπο-τελεύτητος* instead of **ἄπο-τελειτᾶτος*, *ἀπό-τισις*, for **ἄπο-τισις*, cp. *ἐνυ-ρέεθρος* above, 1.

4. Cumulative numerals (*Dvandva*) had the accent on the first number, as Skr. *dvā-daśa* Gr. *δώ-δεκα* 'twelve'.

Aryan.

§ 20. In the proethnic period of Aryan the existing types of formation underwent no important changes.

In certain forms, as Skr. *áśva-magha-s*, we find *-a-* where we should expect *-ā-*. These no doubt arose by analogy in proethnic Aryan, if they are due to the influence of Indo-Germanic stems in *-ā-*, or if they contain the form of the instr. sing. See § 22, with the Remark.

Examples of compounds which accurately represent the Indo-Germanic types are: Skr. *vīra-hán-* Avest. *vīra-jan-* 'slaying men'. Skr. *áva-hata-* Avest. O.Pers. *ava-jata-* 'beaten off, struck down, killed': cp. Lat. *au-*. Skr. *dūrē-śruta-* proper name, Avest. *dūraē-srūta-* 'far-famed', containing the loc. sing. of the stem *dūra-*.

§ 21. In Sanskrit, nominal compounds were freely developed. In the Veda and the Brāhmaṇa compounds containing more than two members appear but rarely; but in the classical language, especially in the artificial style, stem-compounds (Class I) consisting of several members are quite common, e. g. *sakala-nīti-śāstra-tattva-jña-s* 'knowing (*jña-*) the essence (*tattva-*) of all (*sakala-*) manuals (*śāstra-*) of deportment (*nīti-*)'. Later poets created compounds which were ab-

solute monstrosities; see the examples given by Justi, *Über die Zusammensetzung der Nomina*, p. 17.

§ 22. Class I.

o-stems. *aśva-yūj-* 'yoking horses': Gr. *Ἰνπό-ζυγος*. Ved. *yuktá-aśva-s* and *yuktáśva-s* 'for whom horses have been yoked'; in classical Sanskrit only the contracted form occurs. No satisfactory explanation has been given of the *-a-* in Ved. *áśva-magha-s* 'rich in horses' *gūrtá-vasu-ṣ* 'possessing agreeable things' and other similar examples.

Remark. Cp. *-ā-* beside *-a-* in Iranian (§ 25) Here we may conceivably have either 1. the feminine *-ā-* (cp. Gr. *θανατη-φόρος* beside *θανατο-φόρος* § 29); 2. Ar. *ā* = Idg. *o* in open syllables (I § 78 p. 69); 3. the effect of some principle of rhythm (cp. Avest. acc. *ver*prā-jan-em* beside gen. *ver*pra-yn-ō* nom. *ver*pra-ja-jā*); or 4. the instrumental in *ā* taking the place of the stem. The origin of the *ā* need not, of course, be the same in every instance. Cp. also Skr. *āśvā-vant-* and the like, § 127.

a-stems. Ved. *jīdā-vāja-s* 'having the speed of the bow-string': Lith. *gijà* 'cord'. Parallel to these are forms with *-a-*, Ved. *ukha-chīd-* 'breaking the pot (*ukhā-*)' etc., see § 12 p. 24 f.

ī-, *ū-*stems. *śactī-vasu-ṣ* 'powerful', *tanū-tyāj-* 'abandoning life and limb'. Cp. § 12 p. 25.

i-, *u-*stems. *tri-pād-*, *paśu-pā-s*, *tri(y)-aruṣa-* etc. (§ 12 p. 25 f.). Cp. also *dyu-kṣa-* 'dwelling in the light of heaven' beside *div-tt-* 'going to heaven' (cp. instr. pl. *dyū-bhiṣ*: instr. sing. *div-d*): nom. sing. *dyāu-ṣ*, Gr. *Ζεύς*.

Nasal stems. *nāma-dhā-s* etc., see § 12 p. 26 f. *sa-kft* Gr. *ἀ-πλόος*, see *ibid.* p. 27.

r-stems. *pitṛ-śrāvāṇa-s* 'bringing honour to a father', *pitṛ-artham* 'for a father's sake'. Cp. § 12 p. 27 f.

nt-stems. *brhāt-kētu-ṣ* 'having a lofty banner': acc. sing. *brhānt-am*. Cp. § 12 p. 28.

es-stems. *rajas-tūr-* 'hastening through the atmosphere'. The *-ō-* in *rajō-mēgha-s* 'cloud of dust' *vacō-vīd-* 'skilled in hymns' (*vācas*: Gr. *ἔπος*), like the *-ō-* of the instr. pl. (*rájō-bhiṣ*), is taken from the nom. acc. sing. in *-ō* (*rájō*), see I § 591 p. 447 f., and § 24 below.

It is not uncommon to find the types of Classes I and IV confused, a case-form taking the place of a stem. Examples are given in § 24.

§ 23. Class II. *á-gata-s* 'not gone, untrodden': Gr. ἄ-βατος 'untrodden'; *án-ápta-s* 'not reached, not reaching to, unskilful': cp. Lat. *in-eptu-s*. *duṣ-pāra-s* 'hard to make one's way over, hard to pass': Gr. δύσ-πορος, the same. The opposite of the latter form, *sú* 'well', was not restricted to use in compounds until the post-Vedic period (as in *su-śrávas-* 'famous'); cp. § 26.

Class III. *prá-tata-s* 'outspread' *prá-tati-ṣ* 'an outspreading': Gr. πρό-τασις 'a stretching forward, assertion'.

ánti-grha-m 'the space over against (before) the house': Gr. ἀντί-θρον 'the space over against (before) the door'. *anu-ṣatyá-s* 'conformable to truth (*ánu satyám*)'. *pari-hastá-s* 'placed round the hand (*pári hástam*)'. *ā-dēva-s* 'going to the deity (*dēvám ā*)'.

§ 24. Class IV. *pitā-mahá-s* 'grandfather on the father's side' (gen. *pitāmahásya*) from *pitā mahá-s* 'pater grandis'; from which came the feminine derivative *pitāmahī* 'grandmother on the father's side'. Cp. Lat. *rōs-marīnus* gen. *rōsmarīnī* § 36.

divō-já-s 'child of heaven' (gen. of *div-*). *dāsyāh-putra-s* 'son of a slave-woman' (gen. of *dāsi*). *bráhmanas-páti-ṣ* 'lord of prayer', *śubhás-páti-ṣ* 'lord of adornment' (gen. of *bráhman-*, *śubh-*). *yudhi-ṣthira-s* proper name, 'firm in battle' (loc. of *yúdh-*). *divā-kírtya-* 'to be repeated by day' (instr. of *div-*).

This group of forms was considerably enlarged because case-forms were sometimes substituted for stems in compounds of the type of Class I; e. g. *divi-kṣít-* 'dwelling in heaven' (loc. of *div-*), *apsu-kṣít-* 'dwelling in the waters' (loc. pl. of *ap-*), *agrē-já-s* 'going at the head' (loc. of *agra-*, *agra-ya-s* is also found), *vājam-bhará-s* 'carrying off booty' (acc. of *vāja-*), *agnim-indhá-s* 'kindling fire' (acc. of *agni-*). In such compounds as these there can have been no transition from a phrase to a compound word, but merely an analogical imitation of compounds already in

existence; for at the time when these were formed, their final members were no longer in use as independent words.

The same holds good of all such 'epithetised' compounds of this class as had that meaning as soon as they came into existence; cp. *rāyās-kāma-s* 'having desire for wealth' (gen.) from *kāma-s* 'desire', *dūrē-antas* 'ended, ending in the distance' (loc.) from *ānta-s* 'end' (compare *dūrē-śrutas*, a proper name, 'far-famed'), *śatām-ūti-ś* 'furnishing a hundred (acc.) aids' from *ūti-ś* 'help' (with the simple stem: *śatā-vāja-s* 'furnishing hundredfold sustenance').

It often happened that the case-ending of the first member was used in new formations after it had ceased to be recognised as such, so that one part of the new compound shows a case-form which does not appear when the word is independent: thus *vānas-pāti-ś* 'lord of the wood' (stem *vāna-*, gen. *vānasya-*) is formed on the analogy of compounds ending in *-as-pati-ś*, whose first member was the genitive of a consonantal stem, as *brāhmaṇas-pāti-ś*; *vasun-dhara-s* 'concealing treasure' instead of **vasu-dhara-s* (cp. *vasu-dhāra-s*) from *vāsu* n. 'treasure', on the analogy of forms like *dhuran-dhara-s* 'bearing a yoke' (acc. *dhur-am*) *kulan-dhara-s* 'sustaining one's family' (acc. *kula-m*).

A further consequence of the dull appreciation of these case-forms was their use in new formations without their proper meaning, i. e. as though they were simple stems. Thus e. g. *apsu-*, loc. pl. of *ap-* 'water' (*apsu-kṣīt-*, see above), was used in place of *ap-* in *apsu-yogá-s* 'the binding effect of water' (Ath.-Vēda X 5, 5 beside *sōma-yogá-s* 'the binding effect of soma'), cp. the adjective *apsavya-s* 'situated in the water', which was formed from *ap-sú* as *madhavya-s* from *mádhu* ('sweet draught').

In imitation of old pronominal compounds like *tad-vaśá-s*, containing the neuter element *-d* (§ 16), neuter pronominal forms in *-m* were made to serve as the initial members of compounds, as *idí-rūpa-s* 'having this form' beside masc. *ayám* 'this', *kiṁ-kāraṇa-s* 'having what cause?' beside masc. *ká-s* 'who?' (cp. the parallel Vedic form *kád-artha-s* 'having what purpose?' *kad-* = Lat. *quod*).

From the proethnic Aryan period onwards combinations of two dual forms were common; e. g. *mitrá várūṇā*, 'Mitra and Varuṇa', properly 'Mitra and the other (sc. Varuṇa) and Varuṇa and the other (sc. Mitra)'. Each dual form was inflected independently. Side by side with them, however, we find *mitrá-várūṇabhyām mitrá-várūṇayoḥ*, which should be compared with such forms as *dvā-daśabhiḥ trayō-daśabhiḥ*. In these the process of composition is complete, and the same may be said of the new compounds formed on the model of those whose first member is a dual form ending in *-ā*, as *agnāviṣṇū* 'Agni and Vishnu' (Ath.-Vēda) instead of *agnī-viṣṇū* (cp. *agnī-śōmā* in the Rig-Veda); which is shewn also by the substitution of *-a-* for *-ā*, as the termination of the first member, on the analogy of Class I; as *parjánya-vāta* beside *parjanya-vāta* 'rain-cloud and wind'. Cp. also the derivatives in *-vant-*. *mitrá-várūṇa-vant-* 'accompanied by Mitra and Varuṇa'.

The compounds *pīta-putrāu* 'father and son' *māta-pitarāu* 'mother and father' *hōta-pōtārau* 'summoner and purifier' must have been preceded by older phrases such as *pīta putrah*, *māta pīta*, *hōta pōtā*, which did not receive the dual inflexion until the process of composition was complete. Cp. O.C.Sl. *bratū-sestra* § 47.

When *anyō-'nyam* and *paras-param* 'alter alterum' had become compounds, the inflexion of the initial member was dropped and the form of the nom. sing. masc. was applied to all the cases; hence e. g. *anyōnyām* 'altera alteram' instead of **anyā anyām*, *tayōḥ . . . kāmō 'bhūt . . . anyōnyam prati* (Nala 1, 17) 'eorum (in eis) amor enatus est alterius in alterum' instead of **anyasya anyam prati*. Cp. Gr. *ἀλλήλων* § 32, Mid.H.G. *ein-ander* § 44 and Lith. *kīts kītą* § 46.

§ 25. Iranian.

Class I. Stems in *-o-*. Avest. *ver'pra-ja-* 'victorious': Skr. *vṛtra-hān-*. Avest. *yuxta-aspa-* and *yuxtāsapa-* 'for whom steeds have been yoked': Skr. *yuktá-aśva yuktásva-*. Avest. *srīraoxšan-* (proper name) = *srīra* + *uxšan-*. O.Pers. *xšaša-*

pāvan- 'guardian of the land, satrap': Avest. *xšaṣra-* Skr. *kṣatrá-* 'lordship, kingdom'. O.Pers. *xšayāršan-* (proper name) = *xšaya-* + *aršan-*. Sometimes *-ā-* is found in place of *-a-*, as Avest. *aša-dā* 'giving what is pure', acc. *ver'pra-janem* beside nom. *ver'pra-ja-*, O.Pers. *ariya-rāmna-* (proper name), perhaps also *uud-maršiyu-* 'dying by suicide' (cp. Avest. *xwā-daēna-* 'having one's own faith'); on this point see § 22 Rem. In Avestic *-ō-* is often found instead of *-a-*, the form of the nominative being used instead of the stem (cp. the Author, Curt. Stud. IX 269, Bartholomae, Die Gāpā's 81); e. g. *daēdō-dāta-* 'made by the demons' (beside *daēvu-yāza-* 'demon-worshipper'), even where the *o*-stem was neuter, as *xšaṣrō-dāh-* 'bestowing lordship' (nom. *xšaṣre-m*). This *-ō-* spread still further; see below.

Stems in *-ā-*. Avest. *daēnā-vazah-* (proper name), from *daēnā* 'faith'. At the same time we have forms with *-a-*, Avest. *gaḍā-vara-* 'wielding the club' (*gaḍā-*) etc. (see § 12 p. 24 f.) and with *-ō-* instead of *-a-*, compounds like *daēnō-disa-* 'teacher of the law'.

Stems in *-i-* and *u*. Avest. *aži-ciṣra-* 'sprung from the serpent', *pri-ayara-* 'space of three days'. Avest. *pouru-nar-* 'rich in men', *urv-āpa* 'with broad stream', *per'pu-ainika-* 'with wide front', O.Pers. *parūw-zana-* (read *paruzanu-*) 'rich in people'. Here too we sometimes find in Avestic the form of the nominative in place of the simple stem: e. g. *nasuš-pacya-* 'burning of corpses' or 'arising in the burning of corpses', *bāzuš-aojah-* 'strong-armed', *vanhuš-dāta-* 'well made'.

Nasal stems. Avest. *ašava-frazanti-* 'pious offspring' from *ašavan-*. Forms with *-ō-* instead of *-a-* on the analogy of the *o*-stems: Avest. *bar'smō-zasta-* 'holding twigs for offering in the hand' from *bar'sman-*. Avest. *zem-fraṣah-* 'encompassing the earth' from *zam-*.

Stems in *-r-*: Avest. *stehr-paēsah-* 'adorned with stars'. *ner'-bar'zah-* 'man's height': Skr. *ṇṛ-bahú-ṣ* 'man's arm'. Compounds in which the strong form of the stem is inserted: *nar'-gar-* 'devouring men', *atar'-carana-* 'belonging to fire', with others like them; cp. dat. abl. pl. *star'-byō* beside *ner'-byō*. The form

of the nom. sing. has replaced the simple stem in *atarš-ciṣra-* beside *atar^e- ciṣra-* 'sprung from fire, combustible'.

Stems in *-nt-*. Avest. *raēvas-ciṣra-* 'of splendid family' (-*sc-* for *-tc-*, see I § 473 p. 349) from *raēvant-*. O.Pers. *dāraya-vau-* (proper name) 'possessing property' (gen. *dāraya-vahauš*) for **dārayad-vahu-*: cp. Skr. *dhārayat-kṣītiṣ* 'sustaining the races of mankind'; cp. Hübschmann, Kuhn's Ztschr. XXVI 603 f.

Avest. *vīs-pati-* 'lord of a village': Skr. *viś-pāti-ṣ-*. *zar^az-dāh-* 'giving the heart' with *-zd-* for *-d + d-* (cp. I § 476 p. 351), from *zar^ad-*: Skr. *hṛd-*.

As examples of the nominative used in place of the simple stem we may notice here Avest. *vāxš-aēša-* 'the desire of the hymn' (stem *vāc-*), *afš-ciṣra-* 'sprung from water' *awš-dāta* 'resting in water' (stem *ap-*), *ker^efš-xwar-* 'eating flesh' (stem *kehrp-*).

Stems in *s-*. Avest. *vacas-tašti-* 'preparation of words, text', *temas-ciṣra-* 'sprung from darkness', *aogaz-dastema-* 'most helpful'. Compounds with *-ō-*, which was taken from the nom. sing., are *ayō-zaya-* 'with iron weapon' *ayō-ver^epra-* 'with offensive weapon of iron' *ayō-ayra-* 'iron arrow' (Skr. *ayō^egru-* 'pestle') from *ayah-*: Skr. *āyas-*. O.Pers. *vahyaz-dāta-* (proper name), like Avest. *vañhaz-dāh-* 'giver of the best', beside the comparative Avest. *vañhah-* 'better': Skr. *vásyas-*.

Remark. The student should compare the Avestic use of the nominative form instead of the stem in derivatives made by formative suffixes and even in the simple cases: *srīrō-tara-* 'more beautiful' (*srīra-*), *spentō-tema-* 'most holy' (*spenta-*), like *daēvō-dāta*; *huđānuš-tema-* 'wisest' (*hu-đānu-*) like *nasuš-pacya-*; dat. abl. *vāyš-byō* from *vāc-* like *vāxš-aēšu-*. Cp. § 13 p. 29.

§ 26. Class II. Avest. *a-yru-* 'not pregnant, virgin': Skr. *á-gru-*; O.Pers. *a-kšata-* 'uninjured': Skr. *á-kṣata-*; Avest. *an-ašavan-* 'impious': cp. Skr. *án-ṛta-*. Avest. *duš-manah-* 'thinking ill' Skr. *dur-manas-* Gr. *δυσ-μενής*. The Idg. **su* 'well' (Avest. *hu-ber^eta-* O.Pers. *u-barta-* 'well born, well cherished': Skr. *sú-bhṛta-*), the opposite of Idg. **dus-*, appears in Avestic, just as in the Veda, as an independent word (*hu*).

Class III. Avest. *upa-yata-* 'subactus, married': Skr. *upa-yata-*. O.Pers. *fra-tarta-* 'drawn away': cp. Skr. *prá-tirṇa-*.

Avest. *paiti-biši-* 'directed against the enemy, conquering the enemy'. *antar^e-dašyu-* adj. 'within the country'. *pairi-dašyu-* 'lying around the country'. *upāpa-* 'adj. in the water'.

§ 27. Class IV. The use in Avestic of the form of the nom. sing. instead of the simple stem, as in *daəvō-dāta*, has been spoken of in § 25 p. 42.

The Avestic adjectives *aərōmainyava-* and *spentōmainyava-* were no doubt formed from the phrases *aərō mainyuš* 'the evil spirit' and *spentō mainyuš* 'the holy spirit': cp. Skr. *pitāmahī* § 24, Gr. *Νεπολίτης* § 32. O.Pers. *aura-mazdā* (with acc. *aura-mazdām*) 'Ormuzd' should be regarded merely as a concretion of two nominative forms, not a compound of two stems (*aura-* 'lord', *mazdāh-* 'wise one'): Avest. *ahurō mazdā*.

Avest. *drujīm-vanunt-* 'overcoming the fiend' (acc. of *druj-* f.). *vīren-jan-* with the acc. sing. beside *vīra-jan-*, see § 20. *ahūm-mer^{nc}-* 'life-destroying' with the acc. sing., beside *ahu-mer^c-*. *vīspā-hišant-* 'able to do everything' (acc. pl. neut. of *vīspa-*). *dūraē-frūdāta-* 'made in the distance' (loc. of *dūra-*). *raḫaē-štār-* 'standing in the chariot (loc. of *raḫa-*), warrior': cp. Skr. *śavyē-ṣṭhar-* 'standing on the left', *-sthar-* for **st-tar-*, see I § 316 p. 255. Epithetised compounds: *dar^eyem-jīti-* 'having one's life long (acc. sing. neut. of *dar^eyā-* used adverbially), long-lived'; *z^emas-ciḫra-* 'having an earthly origin' (*z^emas-* gen. of *zam-*); *a;raē-raḫu-* (proper name) 'whose chariot is at the head' (loc. of *a;ra-*).

Avest. *aəvan-dasa-* 'undecimus' from **aəvan-dasu-* 'undecim'; the first half of the word is no doubt *aəvem*, the form of the neuter and of the masculine alike.

Combinations of two dual forms occur in Avestic as in Sanskrit (§ 24 p. 41), e. g. *ahura miḫra* and *miḫra ahura* 'Ormuzd and Mithra', *āpa urvairē* 'water and plants' (*ap-* 'water', *urvarā-* 'plant'), *pasu vīra* 'cow and man'. But the fusion of these elements is not by any means so close as it is in Sanskrit,

since the first member always retains its own inflexion, e. g. dat. *ahuraṣiḃya miḃraṣiḃya*. Cp. Bartholomae, *Bezenberger's Beitr.* X 267 ff., XIII 57 f.

Armenian.

§ 28. Class I. Here the Indo-Germanic differences in the termination of the stem of the first word were largely obliterated. Where the second member begins in a consonant we find an *-a-*, the so-called 'vowel of composition', whose origin is as yet unexplained.

Compounds in which the second member begins in a sonant: *dr-and* 'door-post, threshold' from **dur-*, pl. *durē*. *hair-anun* 'having one's father's name' from *hair*, gen. *haur*. *skesr-air* 'mother-in-law's husband, father-in-law' from *skesur*, gen. *skesri*. *hing-ameay* adj. 'of five years', from *hing*.

Compounds in which the second member begins in a consonant: *dr-a-kiç* 'door-companion, neighbour'. *lsn-a-goin* 'whitish' from *lsun*, pl. *lsun-ē*, 'λευκώματα' and *goin* 'colour'. *lus-a-vor* 'clear' from *lois*, gen. *lusoy*, 'light', *-vor* being a suffix which corresponds to the Gr. *-φάρος* 'bringing'; a later compound is *lus-a-ber* 'light-bringing, enlightener' (cp. I § 485 p. 358 for an account of Idg. *bh*). *ms-a-ker* 'eating flesh' from *mis*, gen. *msoy*, 'flesh'. *mi-a-cin* 'unigenitus', from *mi*, gen. *mioj*, 'one'. Combined with the termination of stems in *-io-*, *-a-* became *-e-*, e. g. *age-vor* 'wearing a tail' from *agi*. This *-a-* was even introduced into compounds whose first member was the case of a noun; see below, Class IV.

Remark 1. This vowel of composition, *-a-*, no doubt formed the original ending of some one form or set of forms when used as the first member of a compound, and then became general. Phonetic laws, however, forbid our assuming that this represents the Idg. suffix *-o-*. I conjecture that it first occurred in words borrowed from the Iranian (e. g. *bar-a-pan* 'doorkeeper' = O.Iran. **dāra-pāna-* or **dāra-pāna-*), and thence spread further by analogy. Compare the *-o-* borrowed from the Greek in Latin compounds like *albo-galerus*, § 34.

Remark 2. It is not clear whether such compounds as *stn-di* 'sucking the breast, suckling' (*stin*, gen. *steun*, 'woman's breast') *akn-kul* 'in one's

eye, visible' belong to Class I, but have never had the composition-vowel -a-, or whether they contain case-forms (Class IV).

Class II. *an-ban* 'carens ratione et verbo': cp. Gr. ἄ-φανος; *an-kin* 'without a wife, widower': cp. Gr. ἄ-γυνος; *an-anun* ἄν-άννυμος; *an-arg* 'unhonoured'. *t-gēt* 'not knowing' (beside *an-gēt*): Skr. *dur-vēda-* 'unlearned'; *t-zōr* 'not mighty, weak' (beside *an-zōr*). Its opposite, *h-* = Skr. *sú* 'well', is found only in composition; e. g. *h-zōr* 'excellent in strength, mighty'.

Class III. Excluding *ni-st*, which has become a simple word (§ 15 p. 30), I know of no compounds containing prepositional words that are certainly proethnic. I strongly suspect that *ham-* 'with, together' (e. g. *han-dart* 'quiet, soft': cp. Skr. *sq-dhṛta-*; *han-dēs* 'proof': cp. Skr. *sq-dēśa-* 'information') was borrowed from Iranian (Avest. *ham-*).

Class IV. *haur-elbair* 'father's brother', *haur* gen. sing. of *hair*. *diuç-azn* 'divine race, he who is of divine race, demigod, hero', *diuç* gen. pl. of *dev*, which was borrowed from Iranian. The vowel of composition, -a- (see above, Class I), is inserted e. g. in *arñ-a-kin* 'husband's wife', *arñ* gen. sing. of *air*; *mels-a-sēr* 'loving sins', *mels* acc. pl. of *mēl*.

air-ev-ji 'man and horse, knight' sometimes inflected both of its parts, e. g. gen. *arñ-ev-jiōy*, sometimes only the final noun, gen. *air-ev-jiōy*; cp. Mod.H.G. *der wert deines grund und bodens*, 'the value of your estate'.

Greek.

§ 29. Class I.

Stems in -o-, where the second member began in a consonant, had -o-: ἄγο-νόμος 'dwelling in the country' (ἀγρό-ς). It must be left an open question whether the -ε- in such compounds as Ἀγέλαος (from ἀγό-ς 'guide') ἀρχέ-πολις (from ἀρχό-ς 'governor') was derived from Indo-Germanic stem-forms in -e-, or whether it was substituted by the Greeks for an older -o- in consequence of the association of the first member with a verbal stem (for which see § 30).

Where the second member began in a sonant, elision was

the rule (I § 600. 603 p. 457): *ἰππο-αγωγός* 'transporting horses' (*ἵππο-ς*). This elision dates from the proethnic period of Greek, and the type then established gave rise later to such forms as *καχ:ξιά* 'ill condition' (*ἔχω* for **σεχω*, I § 564 p. 421) *φιλ-εργός* 'loving work' (*ἐργον* for *φέργον*, I § 164 p. 145), by the side of which we also find phonetically regular forms like *ῥαβδούχος* 'holding a staff' (for **ῥαβδο-(σ)οχος*) *κακο-εργός* *κακοῦργος* 'doing evil'. Forms like *ἀράχνο-ῖνής* 'woven by spiders' (Philo) are obviously new formations of a later date; cp. Lat. *multi-angulus* § 34, Goth. *galiuga-apauštaulus* § 40.

The stem-final *-o-*, as we shall soon see, was extended from *o*-stems to others of the most widely different classes; monosyllabic stems were least affected by the tendency (e. g. *χέρωνιψ*, *πυγ-μάχος*; see below).

-ā- (Ion. Att. *-η-*) often appears instead of *-o-*; e. g. *θανατηφόρος* beside *θανато-φόρος* 'death-bringing' (*θάνατο-ς*), *ὀμβρη-γενής* 'rain-born' (*ὄμβρο-ς*).

Remark. This *-a-* appears side by side with *-o-* even where the latter was due to form-association, as *ἀσπιδ-η-φόρος* beside *ἀσπιδ-ό-δουπος*; stem *ἀσπίδ-*, see below.

As regards the origin of this *-a-*: the wide extent of its usage is certainly due to the action of analogy, and it is conceivable that its origin is to be found 1. in forms like *νεα-γενής* (*νεη-γενής*) *ὀλιγη-πελέων*, which contained adverbs like Dor. *ἄμα ἄμα*, *κρυφᾶ* (Westphal, Meth. Gramm. II 8 f., Mahlow, Die lang. Voc. A E O 131 f.); 2. in a number of instances where *ā-* and *o*-stems existed side by side; 3. in such compounds as *νικη-φόρος* *βουληφόρος*, *αἰδη-γενής* *μοιρη-γενής*, the terminations *-ηφόρος* *-ηγενής* being regarded as indivisible and thus coming into general use; just as in Attic, compounds like *ῥαβδούχος* (*ῥάβδο-ς*) and compounds like *κακοῦργος* (*κακό-ν*), being virtually analysed *ῥαβδ-ούχος* *κακ-ούργος*, gave rise to new formations, *πολι-ούχος* *παν-ούργος* and the like; and just as feminines from *n*-stems, such as *τίκταινα* i. e. **τεκταν-η* (from *τέκτων*), suggested new formations like *λύκ-αινα* (from *λύκο-ς*) (§ 110). I feel certain that a great part at least of the instances where *-a-* is found in place of *-o-* are to be explained in this last way. Cp. also *-η-εις* (*-a-fer-*) in § 127.

Stems in *-ā-*: followed by those whose nom. sing. ends in *-ιά* (§ 109). *νικη-φόρος* 'bringing victory' (*νίκη*). *ὑδριᾶ-φόρος* 'bearing a water-vessel' (*ὑδρία*). Ion. *μοιρη-γενής* 'born to good fortune' (*μοῖρα* for **μορῖᾶ*). By the side of *-ā-* there are a few

instances of *-α-*; as *Ἀλά-θοος*, *τῆμωρός* for **τῆμα-ορός* 'guarding a man's honour, protecting, helping' (Wackernagel, Kuhn's *Ztschr.* XXVII 263, XXVIII 132); the historical relation of *-α-* to *-ᾱ-* is obscure. *-ο-* frequently appears instead of *-α-*: *Νικό-μαχο-ς*: *νίκη*; *πολίτο-φθόρος* 'destroying the citizens': *πολίτη-ς*; Dor. *ἑστιο-πάμων* 'house-owner': *ἑστιά*; *ἄελλό-πος* 'storm-footed': *ἄελλα*. The influence of *ο-* stems is seen also in the loss of the final vowel of the stem when the second member begins in a sonant, e. g. *Νίκ-ιππος*. Cp. § 12 p. 24 f.

Stems in *-ῖ-* and *-ῡ-*. An original type of formation may be preserved in such compounds as *σύ-αγχο-ς* 'choking swine' (*σῦ-ς*). Cp. § 12 p. 25. Where the second member begins in a consonant we find the vowel short, thanks to the analogy of the preceding group: e. g. *συ-φορβός* 'swineherd'; in the same way we have loc. pl. *συ-σί* for **σῦ-σι* following *συ-ός* *συ-ῶν* etc., see § 160, 4. Some forms insert *-ο-*: *ὑ-ο-μονσίᾱ* 'swine's music' *συ-ο-κτόνος* 'killing swine', *ἰχθυ-ο-γάγος* 'eating fish' beside *ἰχθυ-βόλος* 'striking fish': *ἰχθυ-ς*.

Stems in *-ῖ-* and *-ῡ-*. *μυντι-πόλος* 'busied with prophecy': *μάντι-ς*. *βιωτι-άνειρα* f. 'nourishing men': **βῳτι-ς* 'act of nourishing'. *ἄστυ-γείτων* 'living near the city': *ἄστυ*. *πολυ-ανθή-ς* 'with many blossoms': *πολύ-ς*. Cp. § 12 p. 25. With *-ο-*: *φύσι-ο-λόγος* 'investigator of nature': *φύσι-ς*.

ναυ-πηγός 'shipbuilder' for **nāu-* (I § 611 p. 461): cp. Skr. *nāu-carā-s* 'going by ship'. From such forms *ναυ-* came to be used even where the following member began in a sonant, e. g. *ναύ-αρχος* 'ship's commander', instead of *να(φ)-* (cp. Lat. *nāv-igō* § 11), which is contained in *Νέαρχος* if this is for *Νέᾱρχος*, from **Nη-αρχος* (cp. I § 611 ad fin.). Examples of inserted *-υ-*: *νη-ο-σώος* 'preserving ships', which may be compared with *βο-ό-κληψ* 'cattle-thief' (*βο-η-νόμος* 'pasturing cattle') beside *βου-νόμος*; hence the correspondence of *νηο-βουο-* with the Skr. forms *nāva-gava-*, which appear as the initial members of compounds, is an accident.

Stems in *-υ-*. With *α* = Ing. *υ*: *ὀνομά-κλυτος* 'with famous name'. We should no doubt compare *κυράμνια* 'dog-fly'; the regular

form would be **κνα-μια*; the *-ν-* came from forms like *κνν-ός κνν-ηγός*; **κνα-* = Skr. *śuva-* (instr. pl. *śuvā-bhiḥ*) Idg. **kuṃh-*. It is questionable whether such compounds as *κνν-ῶπις* 'dog-eyed' are the immediate representatives of any original type of formation.

With *-ο-* instead of the *n*-suffix: e. g. *κιδ-ο-κράνο-ν* 'capital of a column'. See § 12 p. 27.

Compounds in which we have a strong form of the *n*-stem are a new formation in Greek. If their second part began in a consonant, *-ο-* or *-ᾱ-* was inserted. *φρεν-ο-μανής* 'mad'. *κτον-ό-κράνον* beside *κιδ-ο-κράνον* (see above). *ῥην-ο-φορεύς* 'bearing a sheepskin'. *ἄγων-ο-θέτης* 'director of a contest'. *λιμεν-ή-οχος* 'closing in the harbour' (cp. *πολι-ᾱ-οχος*) beside *λιμεν-ο-σκόπος* 'watching the harbour'. *ἀκτῖν-η-βολία* 'the shooting of rays' beside *ἀκτῖν-ο-βολία*. Probably the only example without *-ο-* (*-ᾱ-*) is *φρέμ-πᾶρος* 'with impaired understanding' Hesych. (the correct spelling is due to Lobeck), which appears beside *φρεν-ο-μανής* and the like as *μελαγ-χροιής* *μελάγ-χροος* beside *μελαν-ό-χροος* 'with dark skin' (*μέλας* gen. *μέλαν-ος*, compar. *μελάν-τερος*), cp. also *χέρ-νιψ* beside *χερ-ό-νιπτρον* p. 50. Where the second member begins in a sonant: *φρεν-ώλης* 'distracted in mind'; *τεκτόν-αρχος* 'presiding over the artificers'; *ἄγων-ᾱρχης* 'director of the contest'.

ἄ-παξ 'once': Skr. *sa-kṣt* 'once', Idg. **seh-*. *χθον-ο-τροφής* 'nourished by the earth', beside Skr. *kṣam-*, a new formation like *κτον-ό-κράνον*; as to *ν* instead of *μ* see I § 204 p. 172 and below, § 160, 2.

Stems in *-r-*. Whilst the Indo-Germanic type was faithfully followed where the second member began in a sonant, e. g. *πατρ-ωνύμιος* *ἀνδρ-άγρια* (§ 12 p. 28), where this began in a consonant it was the rule to insert *-ο-*, as *πατρ-ο-φόνος* 'patricide'. This was preceded by a form **πατρα-φονος*, cp. loc. pl. *πατρά-σι* and Skr. *pitṛ-śrāvāṇa-s*. Thus we still find *τετρά-γνος* = Idg. **getur-*, where *α* was preserved by the parallel compounds with *ἔπτα-* etc.¹⁾ The strong form of the stem is

1) I no longer compare the first part of the pl. *ἀνδρά-ποδα* with Skr. *nr-* (G. Meyer, Gr. Gr.² p. 23), but I regard the word as a new for-

Brugmann, Elements. II.

often found instead of the weak, as *ἀστερ-ο-ειδής* 'star-like' from *ἀστήρ* *ἀστέρος*; this is regular in *nomina agentis* such as *λαμπτηρ-ο-φόρος* 'bearing lights' (*λαμπτήρ*) *ρήτορ-ο-διδάσκαλος* 'teacher of rhetoricians' (*ρήτωρ*); the original type is shown by Skr. *hōty-śādana-m* 'seat of the offerer' (*hōtiar-*); see § 120. Monosyllabic *ρ*-stems sometimes have and sometimes have not *-ο-* or *-ᾱ-*: *χέρ-νιψ* 'water for washing the hands' and *χειρ-ό-νιπτρον* *χειρ-ό-νιπτρον* 'wash-hand basin' (for the etymology of *χέρ* cp. § 132), *πυρ-καίή* 'burning-place' and *πυρ-ο-ειδής* 'fire-like' *πυρ-η-τόκος* 'producing fire'.

Stems in *-nt-* show here as in their declension (§ 125. 126) their strong instead of their weak form. *δρακοντ-ό-μαλλος* 'with snaky locks', the weak form of the stem being **δρακατ-*. *ὀδοντ-ο-φυής* 'sprung from teeth'. *γιγαντ-ο-φόνος* 'killing giants'. *παντ-ο-μίσης* 'all-hateful'. Before sonants: *πάντ-αρχος* 'all-governing'.

Stems ending in other explosives. *πυγ-μάχος* 'pugilist'. *ποδ-ώκης* 'swift-foot, swift-footed'. These usually have *-ο-* or *-ᾱ-*: *φλογ-ο-ειδής* 'flame-like'; *νιφ-ό-βολος* 'pelted with snow'; *ἀσπιδ-ό-δουπος* 'clattering with shields' *ἀσπιδ-η-φόρος* 'shield-bearing'.

Stems in *-s-*. *μῦσ-φόνος* 'killing mice': Lat. *mas-cipula*.

es-stems have *-εσ-* in poetic diction, as *ἔπες-βόλος* 'hurling words, speaking boldly', *ἐγχες-φόρος* 'spear-bearing'. At the same time we find *-ο-* instead of *-εσ-*, sometimes even in Homer, and regularly in prose: *ἑρο-κόμος* 'spinning wool', *ἐπο-ποιός* 'epic poet', *ἀληθό-μαντις* 'prophet of truth'; similarly *ψευδ-άγγελος* 'messenger of falsehood', where the second part begins in a sonant. *-ο-* for *-εσ-* no doubt arose from the similarity of the nominative forms, *ἔπος*: *ἵππο-ς*. Examples with *-ᾱ-* instead of *-ο-*: *ξίφη-φόρος* 'sword-bearing' (beside *ξίφο-φόρος*), *θυη-πόλος* 'busied with sacrifice'.

mation modelled upon *τετράποδα* (Iw. Müller's Handbuch II 70 Rem. 1). Of course it is conceivable that this form arose at a time when **πατρα-φόνος* was still spoken and that afterwards the *-α-* in *ἀνδρα-ποδ-* remained because it was supported by the *-α-* of *τετρα-ποδ-*. Cp. also Wackernagel, Kuhn's Ztschr. XXX 298.

Stems in *-ασ-* were treated in much the same way. *σελασ-φόρος* 'light-bringing', *κερασ-φόρος* 'horn-bearing' (cp. Skr. *jyṣṭiṣ-ṛakṣa-s* 'winged with light', § 134, 2). At the same time we find forms with *-ο- -α-*, as *κερο-φόρος*, *κρεο-δόχος* and *κρηγ-δόκος* 'holding or containing flesh'. There is no example amongst *-es-* stems analogous to Hom. *κερα-ο-ξόος* 'worker in horn' (with regard to the apparently similar Hom. *ἐλεό-θρεπτος* beside *τὸ ἔλος* see p. 34 ff. of R. Schroeter's treatise cited on p. 22).

§ 30. From the phrase *καλὸς κἀγαθός* was formed the abstract substantive *καλοκἀγαθία* 'character of a *καλὸς κἀγαθός*'. Cp. O.C.Sl. *osmo-na-desetŭ* § 47 and the use of the bare stem in Mod.H.G. phrases like *freund- und verwandtschaft*, *gold- und silberschmid*.

In Greek, as in Germanic and Slavonic (§ 41. 47), a large number of compounds came to be regarded in a new way. Their first member now appeared to the popular consciousness to have a verbal instead of a nominal force. This gave rise to many new formations in which real verbal stems were employed as the initial members of compound words.

Thus *τανύ-γλωσσο-ς*, whose meaning originally was 'with outstretched (adj. **τανύ-ς* = Skr. *tanú-ṣ*) tongue', was explained to mean 'stretching out the tongue' (and compared with *ταίν-ται*), *φιλό-ξενος* 'to whom a stranger or guest is dear (*φίλος*)' was explained as 'loving one's guest' (and compared with *φιλέω*), *φυγο-πτόλεμος* 'unfriendly (**φυγο-ς*: cp. Lat. *lūci-fugu-s*) to war' as 'fleeing from war' (and compared with *ἐφυγον*), and so forth. Hence arose new formations like *μισό-ξενος* (first modelled upon the form *φιλό-ξενος*, cp. *μισέω*: *φιλέω*) 'hating a stranger', *φαινο-μηρίς* 'showing the hips' (*φαίνω*), *ἐθελό-πονος* 'willing to work' (*ἐθέλω*). As to the *-ε-* of *Ἀγέ-λαος*, *ἀρχέ-κακος* etc. see § 12 p. 24, § 29 p. 46. If this is not the *e*-form of the suffix, and so derived from the pre-Greek period, we must assume that it was borrowed from forms like *ἄγεται ἄγε-τε* when the first part of such compounds came to be regarded as a verbal stem.

New formations of all kinds were introduced by compounds like *τερψί-μβροτος τάνυσί-πτερος ἄρκεσί-γυιος*, the initial members of which were abstract nouns formed with the suffix *-ti-* (§ 100) *τέρψ-ις* 'delight' *τάνυσι-ς* 'outspreading' *ἄρκεσι-ς* 'help, strengthening', because these were associated with the aorists in *-σ-* (*ἔτερψα ἔτάνυσα ἤρκεσα*), and were consequently regarded as having a verbal force, 'delighting men' 'spreading the wings' 'strengthening the limbs'. The new verbal signification was all the more easily established in these forms because of compounds like *φνυγο-πτόλεμος*, whose first member had been identified as an aorist-stem at an earlier stage of Greek. Thus in the first place, where the abstract noun and the *σ*-aorist showed different grades of ablaut in the root-vowel, that of the latter was introduced: by the side of *στασί-αρχος* (*στάσις*) arose *Στησί-χορος* 'bringing on the chorus' (on the model of *ἔστησα*); *φθισί-μβροτος* 'destroying men' (on the model of *ἐφθίσα*) as contrasted with *φθίσις*. Next, the connexion of these aoristic compounds in the mind of the speaker with such others as *λειπο-ψυχέω φνυγο-πτόλεμος ἀρχέ-κακος φνυ-αίχμης* led to an imitation of the ending seen in the initial members of these latter forms. Hence compounds like *λειψό-θριξ* 'having lost one's hair' *περσέ-πολις* 'destroying cities' *Στησι-αγόρης* (contrast *στασί-αρχος* from *στάσις*). But on the other hand the *-ι-* of compounds in *-σι-* crept into compounds whose initial member was the stem of a present or a strong aorist. Hence such forms as *ἀλέξι-κακος* 'keeping off harm' (*ἀλέξω*) *λαθι-κηδής* 'forgetting care' (*ἐλαθον*, cp. *λησί-μβροτος*). This process of mutual assimilation may have been aided by the double type of the *σ*-aorist, *ἔδειξα* and *ἔξον* existing side by side. Many other new formations were caused by the association of these *-σι-* compounds with those of Class IV whose initial member was a loc. pl. in *-σι*, as *ὄρεσί-τροφος* 'reared on the mountains'; see Osthoff, Verb. i. d. Nominalc. 193 ff. Lastly, we must notice certain other new formations: *Πρωτεσί-λαος* (beside *Πρωτό-λαος*, from *πρῶτος* 'first') formed on the model of *Ἀγεσί-λαος Ἀρκεσί-λαος* and the like, and *Ερμησί-λειος*.

Ἑρμῆσι-άναξ *Ἑρμῆσ-ανδρος* (from *Ἑρμῆς*) modelled on such forms as *Ἀγῆσι-λάος* *Ἥγησι-άναξ* *Ἀγῆσ-ανδρος*.

§ 31. Class II. *ἄγνωτο-ς* 'unknown': Skr. *á-jñātas* Lat. *ignōtus* for **in-gnōtus* (I § 506 p. 370); *ἄνυδρος* 'waterless': Skr. *an-udrā-s*. On the analogy of forms like *ἄνυπνος* 'sleepless' *ἄανος* 'wineless', in which the hiatus was due to the loss of some consonant (the older forms were **ἀ-συνπνο-ς*, **ἀ-φοινο-ς*, though the latter can hardly have been developed regularly from a pre-Greek form **η-μοῖνο-*, see I § 225 p. 193), there were formed several other compounds like *ἄοδμος* *ἄοζος* (with *ὀδ- cp. Lat. od-or*; *ὄζος* = Goth. *asts*) by the side of the forms *ἄν-οδμος* *ἄν-οζος* which are also found. *δύσφορος* 'hard to bear'; cp. Skr. *dur-bhara-s* 'hard to bear, to nourish'.

Class III. *ὑπό-θετος* 'placed under' *ὑπό-θεσις* 'groundwork, foundation': Skr. *ūpa-hita-s* 'placed under, situated' Lat. *sub-ditus* *sub-ditiō* (*sub-* for **x-ub-*? see I § 568, 2 p. 424, II § 2 p. 3).

προς-έσπερος 'towards evening': Skr. *prati-dōṣā-* 'towards evening'. *παρά-βακτρος* 'situated near one's staff', *παρά-νομος* 'contrary to law'. *ἀνά-λογος* 'corresponding to λόγος'. *ἐγ-κέφαλος* 'being in the head, brain'. These compounds generally end in the suffix *-ιο-*, as *ὑπ-ασπιδ-ιο-ς* *παρα-θαλάσσι-ο-ς* *ἐν-αγών-ιο-ς*; see § 63.

οὐ-τις 'no one' beside *μή-τις*, no doubt took the place of an Idg. form **ne-qi-s* at the time when **ne* was driven out of use by *οὐ*, a form whose origin is still obscure (cp. § 15 p. 31). Later arose *οὐδ-είς* 'no one' and the like.

§ 32. Class IV. By the side of *δύ-δεκα* (§ 16) arose *ἐν-δεκα* 'eleven' (*ἐν-* nom. acc. neut.), *τρεῖς-καί-δεκα* 'thirteen', *τετταρες-καί-δεκα* 'fourteen' (nom. pl. masc. fem.); another word for 'thirteen' is the Att. *τρίσ-καί-δεκα* (acc. pl.), note also the form *τρεῖσκαδέκατος* 'thirteenth', and others of the same sort.

From *Νεῆα πόλις* ('Newtown') were formed gen. *Νεῆας πόλεως* and *Νεᾶπόλεως*, and further *Νεᾶπολίτης*. Similarly *τριτημόριος* 'making the third part' was probably based on *τρίτη μὀρᾶ*.

Διόσ-κουροι 'sons of Zeus', hence *Διόσκουρειον*, *διός-δοτος* 'given of Zeus', properly 'one given belonging to Zeus' (gen.

of Ζεύς). νεώσ-οικοι 'ship's houses, arsenal' (gen. of ναῦς). ὑόσ-κῆμος 'pigs' bean' (gen. of ὕς). Πελοπόννησος for Πέλοπος νῆσος 'island of Pelops' (cp. I § 565 p. 422 f.). διτ-φίλος or διτ φίλος 'dear to Zeus' (loc. of Ζεύς). δουρί-κτῆτος 'won in battle' (loc. of δόρυ). ξαρί-δρεπτος 'plucked in spring' (loc. of ἔαρ). Ἀλκιμέδων 'ruling in might' (loc. ἄλκ-ι). κηρесси-φόρητος 'driven or impelled by the Kêres' (loc. pl. of κήρ). πᾶσι-μέλων 'of interest for all' (loc. pl. of πᾶς). Ἴφι-μέδουσα (proper name) 'ruling with might' (instr. of ἴ-ς Lat. *vi-s*). παν-ἡμαρ 'the whole day' (acc. neut. of πᾶς). νουν-εχόντως 'in an intelligent way' (acc. of νοῦς).

This group of forms was considerably enlarged by the employment of case-forms instead of the first stem of the original stem-compounds (Class I). Among mixed formations of this kind are compounds whose final member has survived only in forms belonging to Class I, and no longer exists as an independent word, as πυλοι-γενής 'born in Pylos' (loc. of Πύλο-ς), δουρί-μαχος 'fighting with the spear' (loc. of δόρυ), Ἴφι-κράτης proper name (cp. Ἴφι-μέδουσα above), νουν-εχής 'having intelligence, intelligent' (cp. νουν-εχόντως above), δικαί-σ-πόλος 'administrator of justice' (acc. pl. of δίκη, cp. I § 204 p. 171).

As these words were formed not by any real process of composition but on the analogy of already existing compounds, so also were those which never had any but an 'epithetised' meaning; e. g. αἰερί-οικος 'having one's dwelling in the air' (αἴερ-ι).

When the termination of the first member was a case-ending whose true character was no longer clearly perceived, it often happened that it was applied to stems with which it properly had nothing to do, as θεός-δοτος 'god-given' (also θεό-δοτος, from θεός) on the analogy of διός-δοτος; Ανκόσουρα a town in Arcadia ('Wolf's-tail', from λύνω-ς) on the analogy of forms like Κυνός-ουρα ('dog's tail'); ποσειτρόφος 'nourishing grass' and ποσειχροός 'grass-coloured' (from πόα πολή 'grass, herb') on the analogy of forms like ὄρεσι-τροφος and ἀνθεσι-χρος (with loc. pl. of τὸ ὄρος 'mountain' and τὸ ἄνθος 'blossom').

A further consequence of the obscuration of the case-ending of the initial member, was the use of this ending in

new formations as though it were only the ending of a simple stem, and therefore with no trace of the function properly belonging to the case; e. g. ἀταλά-φρων 'with untroubled mind' (cp. ἀταλα-φρονέων, ἀταλὰ φρονέων, acc. pl. neut. of ἀταλό-ς), ἀρει-θύσανος 'fimbria Martialis' (cp. ἀρεί-φατος 'slain in war', loc. of Ἄρης), πυρι-ήκης 'with fiery point' πυρί-πνοος 'breathing fire' πυρί-παις 'fire-child' (cp. πυρί-κανστός 'burnt with (in) fire', loc. of πῦρ), Ἀλκί-νοος Ἀλκί-φρων (cp. Ἀλκι-μέδων), χολοί-βόρος 'consuming gall' or 'consuming like gall' (cp. χολοί-βαφος 'dipped in gall' beside χολό-βαφος χολο-βαφής), κηρεσι-φόρος 'death-bringing' (cp. κηρεσι-φόρητος p. 54), ἰχθυσι-ληστήρ 'fish stealer' (ἰχθύς) etc.

Remark 1. Compounds containing real stems in -ι-, as μαντι-πόλος, may also have given the appearance of simple stems to initial members of compounds which were locatives ending in -ι- like πυρι-. And in discussing those forms which contain locatives pl. in -αι-, stem-compounds like τερψί-μβροτος ἀρεσι-γυιος ταυσι-πτερος (see § 30 p. 52) must not be forgotten. Compare also the fact that the abbreviated form Ἥρι-ς was made from Ἥρι-γένεια Ἥρι-γόνη and the like, whose initial part was the loc. ἥρι 'early', no doubt on the analogy of Ζεῦξι-ς: Ζευξι-δαμος; and in the same way the abbreviated form Ἰφι-ς was made from Ἰφι-άνασσα and like, which contained the instr. ἰ-φι.

It should be observed, however, that a large proportion of the new formations we are now considering are only found in late poets whose diction contains much that is artificial.

The form παν-, found in use as well as παντ-(ο-), is the neut. πάν which stands for *παντ, and was used originally with the force of an adverb in compounds like παν-αίολος 'all-gleaming' πάν-σοφος 'all-wise' πάμ-πρωτος 'quite the first, the very first'. From these forms it spread to others, with the same meaning as παντ-(ο-), e. g. Παν-έλληνες 'the united Hellenes' πάν-δημος 'concerning the whole people' πάμ-μηνος 'lasting through all the months'. παν-οὔργος 'clever in any business' followed the type of forms like κακοὔργος i. e. κακο-(F)εργός.

Remark 2. In some combinations, παν- may possibly be the regular phonetic representative of the stem παντ- (cp. χερ- beside χερ-ο- and the like). So much may be admitted; but it seems to me improbable that this was generally the origin of the form.

Other examples with adverbs: ἀκαλα-ρείτης 'flowing quietly'

(acc. pl. neut.), *ἀμα-τροχιά* 'collision of wheels' (instr.), *παλαι-φατος* 'told from of old, foretold' (loc.).

ἐγ-χειρί-θετος 'placed in the hand'; *ἐμ-πυρι-βήτης* 'standing in the fire' derived from the phrases *ἐν χειρὶ θεῖναι*, *ἐν πυρὶ βῆναι*.

ἀλλήλους 'each other', which was used as readily of two single things or persons as of two pairs or two larger contrasted groups, must imply a proethnic Greek phrase **ἄλλος-ἄλλον*, du. *ἄλλω-ἄλλω*, pl. **ἄλλοι-ἄλλων*. **ἄλλᾱλλ-* arose by contraction in the combinations **ἄλλᾱ-ἄλλᾱν* **ἄλλα-ἄλλα*, and then spread through the other cases. Next the dual and plural inflexion was used even where only two single things were spoken of. Lastly *-ἄλλ-* became *-ᾱλ-* Ion. *-ηλ-* (cp. Wackernagel, Kuhn's *Ztschr.* XXX 294 f.). A more detailed discussion may be found in Fleckeisen's *Jahrb.* 1887, p. 105 ff.

Similarly we have *αὐτοσ-αυτό-* (also *αὐς-αυτό-*) in the Delphic dialect and elsewhere. Originally the phrase *αὐτοσ-αυτοῦ* was used only in reference to a nom. sing. masc. in the sense of 'ipse sui', with the parallel forms **αὐτᾱ-αυτᾱς* etc. But when the phrase passed into a single word, the first member became incapable of inflexion, and the form of the nom. sing. masc., as occurring most frequently, was used throughout. Hence e. g. Delph. inscr. *κυριεύουσα αὐτοσαντᾱς* and *κυριεύοντες αὐτοσαντῶν*, Heracl. inscr. *μετ' αὐτοσαντῶν*.

The genuine forms *ποδ-από-ς* *ἄλλοδ-από-ς*, whose etymological structure had become obscured (§ 16 p. 32), gave rise to new formations like *ἡμεδαπός* 'born in our country, countryman' *παντοδαπός* 'of all sorts or kinds, manifold', as though the second member of the compound were *-δαπο-*. The same *δ* occurs in *ὅστις ὅτι* 'who (whoever)' for **σφό-δ τις*, **σφό-δ τι*, see § 4 p. 9.

τοῦτο = **τό ὦ το*, where *ὦ* is a particle = Skr. *ύ*. The forms masc. **ού-* and fem. **ᾱύ-* = Idg. **sō u*, **sā u*, date from the pre-Greek period and perhaps these were pronounced as monosyllables **sóm* **sām* even in proethnic Indo-Germanic: cp. masc. Skr. *sō*, O.Pers. *hauv*. Then the neuter *τό* was added to these with the force of an adverb (cp. O.C.Sl. *kŭ-to* 'who?') giving the forms **ούτο* **ᾱύτο* (for **ᾱύτο*, by the regular change,

I § 611 p. 461) and a new formation *τοῦτο* (instead of **τοδ-υ-το*). Then these forms, whose ending was invariable, were influenced by other pronominal forms whose endings were inflected, and thus we have finally *οὗτος αὐτᾶ* etc. Cp. Delbrück, Synt. Forsch. IV 139 f., Osthoff, Morph. Unt. IV 257 f., G. Meyer Gr. Gr.² p. 396.

The phrase *ἐμavτόν* = *ἐμὲ αὐτόν* 'me ipsum' gave rise in Attic to the new formations *ἐμavτοῦ ἐμavτῶ*, while in Ionic *ἐμεωντοῦ* = *ἐμέο αὐτοῦ* (cp. *τωυτό* = *τὸ αὐτό*) produced *ἐμεωντῶ* and *ἐμεωντόν*.

Italic.

§ 33. In the Italic group, especially in Latin, the practice of compounding noun-stems by the method of Class I survived in popular speech, though only to a small extent. Amongst the Romans it received an artificial stimulus and attained a certain degree of importance through the close adherence of Latin poetry to Greek models. But eminent stylists and grammarians of the classical period recognised the spurious character of words coined on Greek types, and protested against encumbering the language with new formations of this kind. The development of the Fourth Class of compounds, however, was by degrees extended all the more widely for this restriction in Class I. As regards Classes II and III, Italic stands in the same position as the other branches of Indo-Germanic.

§ 34. Class I. We may discuss the Latin forms first.

Stems in *-o-*. Where the stem-final of the first member was not entirely lost before an initial consonant in the second part, it took the intermediate form of the irrational vowel. Accordingly it usually appears as *-i-*, e. g. *belli-ger* (beside *bellum*); before labials and before *l* as the sound intermediate between *u* and *i*, e. g. *centu-peda centi-peda*, *māgnu-ficus māgnificus*, *cunu-ligus*. Where *-o-* appears instead, as in *albo-galērus Ūno-mammia sexcento-plāgus* (Stolz, Die lat. Nominalc. 19 ff.), we must assume that it is due to the influence of words borrowed from the Greek, or sometimes to the influence of Gallic (cp.

the Armenian *-a-* in compounds, which — if our conjecture be right — was borrowed from Iranian, § 28 Rem. 1 p. 45)¹). The final of the stem has completely disappeared in *prīn-ceps* from *prīmo-*, *oin-vorsei* (S. C. de Bacch. 19) from *oino- ūno-*, and some other instances; see I § 633 p. 474. Where *r*, following a consonant, preceded the final vowel of the stem, it sank with the latter to *r*, perhaps as early as the proethnic Italic period, whence the *er* which appears in the historical period of Latin; e. g. *sacerdōs*, which was directly preceded by the form **sácŕ-dō(t)-s* (see vol. I loc. cit. and Stolz, Wien. Stud. IX 304 f.); such words as *sacru-fex sacri-fex*, *agri-cola* were formed afresh at later period²), just as *acri-tās* took the place of **acertās*, which would have been the regular form, and *facili-tās* arose by the side of the older form *facul-tās*. Where the second part began in a sonant, the vowel was elided, as *somn-ambulus*, *rēm-ex*, *māgn-animus*, *flex-animus* (touched to the heart³); such forms as *multi-angulus* (beside *mult-angulus*) came into use later on by analogy (like Gr. ἀπαχνο-ῦγής, § 29 p. 47) see I § 604 p. 458.

Since compounds like *albo-galerus* cannot count as genuine Latin formations, we are left in doubt whether the *-i-* (*-u-*) of historical Latin stands for Idg. *-o-* or *-e-*. The probabilities however are in favour of the former. Cp. § 12 p. 24.

Stems in *-iō-* regularly show *-i-*, as *medi-terrāneus* from *mediu-s*, *offici-perda* from *officiu-m*. Cp. *capis* I § 135 p. 122, also Goth. *arbi-numja* § 40 and the remarks on the gradation

1) The *-o-* of *ho-diē* must be regarded as of genuine Latin origin, if Danielsson (Stud. gramm., Upsal. 1879, p. 51 sq.) is right in his explanation of the word; he supposes that an old form **hō-diē* (Class IV) was re-modelled on the analogy of Class I (cp. *multi-modis* § 36), and that the *o* was preserved from being weakened to *-i-* or *-u-* by its position in the accented syllable. But perhaps we ought rather to derive *ho-diē* from an instr. sing. **hō*, with its *ō* shortened on the analogy of *modo* and similar words (cp. *quo-que*). A third derivation is suggested by L. Havet, Mém. de la Soc. de Lingu. IV 229 sq.

2) *sacerdōs* was not transformed into **sacridōs*, because its component parts had ceased to be clearly recognised.

of the suffix *-iō-* which will be found in § 63. If this *-i-* stands on the same footing as the *-r-* of **sacr-dōs* (see above), the derivative *socie-tās* (from *sociu-s*) must bear the same relation to the above mentioned compounds as *sacri-fex* to *sacer-dōs*. *Med-amna* 'Μεσονοράμλα' follows the analogy of *māgn-animu-s* (see above). *trit-avo-s* then might be referred either to a form **trit-iō-* (cp. *tertiu-s*, Avest. *pritya-* etc.) or to **trito-* (cp. Gr. *τρίτο-ς*).

-i- corresponds in Latin to the *-o-* which serves in Greek as the 'vowel of composition' after most consonantal stems, cp. e. g. *ὀδοντ-ο-φνής* 'sprung from teeth' and *dent-i-frangibulus*. It seems probable that the Lat. *-i-* here sometimes represents the Idg. *i* of *i-stems* (cp. *igni-fer* from *igni-s*), especially when we consider how frequently the consonantal stems pass into the *i*-declension, e. g. *nāv-i-s* and *dent-i-bus dent-i-um* § 93 (Italic). Then e. g. *nāv-i-fragus* (beside the older *nau-fragus*) will have been formed from *nāv-i-s*, that is from an *i*-stem.

Stems in *-ā-*. *-ā-* is hardly to be found except where the second member has sunk to the level of a suffix: *fabā-ginus*, cp. *fabalis fabaceus*; *oleā-ginus -gineus*. Elsewhere the forms are treated like the *o*-stems. *tubi-cen* : *tuba*; *aqui-dūcus* : *aqua*. *tubu-lāstrium* and *tubi-lāstrium* : *tuba*. *-o-* (a Grecism): *viocūrus* : *via*; *blatto-sēricus* : *blatta* (cp. *holo-sēricus*). *glōri-ficus* : *gloria* like *offici-perda*. The *ī* of *tībī-cen* (: *tibia*) has not been explained; is it parallel to Skr. *śactī-vasu-ṣ* ?

Stems in *-i-* and *-u-*. *angui-cornis* : *angui-s*. *tri-dēns* : dat. *tri-bus*. *morti-fer* : gen. pl. *morti-um*, Skr. *mṛti-ṣ*. The disappearance of the final *-i-* of the stem in *fūn-ambulus* from *fūni-s* is to be explained as due to the analogy of *o*-stems; *fūni-ambulus* was a later analogical formation like *multi-angulus* (p. 58); cp. also *sēm-ermis sēm-ustus* beside *sēmi-erinis sēmi-ustus* from *sēmi-* = Skr. *sāmī* 'incomplete, half'. *-u-* occurs in *u*-stems only before labial sounds, as in *acu-pedius* (cp. Gr. *ὠκύ-ς* 'swift') *manu-festus* (*manu-s*), and since in such instances *i* is sometimes written as well as *u* (*mani-festus*) the sound must have

been intermediate between *u* and *i* (I § 49 p. 41 f.). Thus the *u*-stems also were treated in the same way as those in *-o*.

nau-fragus, like Gr. *ναυ-πηγός*, is no doubt a complete, not a syncopated form; *nāv-igō* is of the same kind, cp. § 11 p. 24; *nāv-i-fragus* and *nāv-i-ger* are new formations. Similarly we have *bū-caeda* and *bov-i-cīdium*: cp. Gr. *βου-* and *βο-ο-* § 29 p. 48; yet we must notice, first, that *bou-* was probably borrowed from Oscan (I § 432 Rem. 1), and secondly that the meaning 'great' in *bū-mammus* etc. points to Greek influence.

Nasal stems. *nōmen-clātor* like Gr. *ὀνομα-κλυτός*? *homicīda* (acc. *homin-em*): Goth. *guma-kunds* 'of the male sex' (*guma*, gen. *gumins*), *sanguī-sūga* (*sanguen*), inscr. *numi-clatori*. See § 12 p. 27. With the last group we should probably compare *nūncupō* for **nōmi-cupō*, cp. *prīnceps* p. 58. There is a third group, the largest and the latest formed, consisting of words like *imāgin-i-fer germin-i-seca Aniēn-i-cola aquilōn-i-gena*, cp. Gr. *φρεν-ο-μανής* etc. (§ 29 p. 49).

sim-plex: cp. Gr. *ἀ-πλόος*, § 12 p. 27. We must also mention here *septem-fluos decem-peda nūn-dinae*, beside which are found *septi-rēmīs sept-ennis, dec-ennis* (cp. *octi-pēs oct-ennis* from *octō*).

Stems in *-r-*. *frātr-i-cīda sorōr-i-cīda*, cp. Gr. *πατρ-ο-φόνος ἑτητορ-ο-διδάσκαλος* (§ 29 p. 50).

Stems in Explosives. *dent-i-frangibulus serpent-i-gena. ped-i-sequos frond-i-fer. vōc-i-feror. rēg-i-fugium*.

Stems in *-s-*. *nas-turtium mūs-cipula. jūdex* for **ioux-dic-s*, *jū(s)-stitium*, and beside it *jūr-i-dicus*. Stems in *-es-* show *-i-* and *-er-i-*: *foedi-fragus volni-ficus* and *foeder-i-fragus mūner-i-gerulus*. The forms with *-i-* only are no doubt due to the similarity of the nominative terminations of the two stems, *foedus: haedu-s*. Nouns in *-ōs -ōris* (§ 133): *labōr-i-fer odōr-i-sequos*; the form *rūmi-ficō* by the side of *rūmor*, implies, as does also *rūmus-culu-s*, an older word **rūmus -eris* or *-oris* (cp. *decus* beside *decor*), cp. also *horri-fer -ficus* beside *horror*. The form *cini-flō*, from *cinis -eris*, is due to the nominative-ending *-is* (cp. *angui-s*), since we could hardly derive

it phonetically from a form like **cinis-flō*; cp. the new formations *cucumī cucumim* beside *cucumis -eris*, and another word which must also be explained by reference to the form of the nominative, *lapi-cūda* from *lapis -idis*.

Remark. We must no doubt assume the loss of *-i-* through syllabic dissimilation in the following: *trucidāre*, for **ruc[i-c]idāre*, *arcubī* ('qui excubabant in arce') for **arc[i-c]ubī*, *cordolium* for **cord[i-d]olium*. See I § 643 p. 482. The monosyllabic stems contained in *pelluviae* for **ped-luviae* (I § 369 p. 280), *sōl-stitium* (beside *sōl-i-fer*) and other such compounds may or may not have dropped an *-i-* (I § 633 p. 474). With *pelluviae* compare *malluviae* for **man-luviae*.

In the monuments of the Umbro-Samnitic dialects this class of compounds is very scantily represented. If we disregard compounds containing numerals, and uncertain instances like the Osc. *.ovfrikúnúss*, whose initial part is mutilated (Pauli, Altit. Stud. II 118), there remains only the Osc. *med-díss med-dis*, whose first part is the same as the Umbr. *meř-s mers* 'ius, fas' (§ 132. 163).

du- for Idg. **d̥u-* 'two' is peculiar to the Italic languages: Lat. *du-plus du-plex du-centī du-bius* (I § 170 p. 150), Umbr. *du-pla* 'duplas' *du-pursus* 'bipedibus'. I regard it as a new formation of proethnic Italic, suggested by *quadru-*: Lat. *quadru-plus -plex -pēs*, and in early Latin **quadru-centī* for *quadringentī* (Wackernagel, Kuhn's Ztschr. XXV 283); *quincu-plex* etc. are formed on the same model. Umbr. *petur-pursus* 'quadripedibus' was a new Umbrian formation.

§ 35. Class II. Lat. *in-jugis*: Skr. *a-yuga-s* Gr. *ἄ-ζυγος* 'unyoked'; *in-eptus*: cp. Skr. *án-āpta-s* 'unattained, unskilled'. Umbro-Samnitic has *an-* 'un-', which seems to correspond to Gr. *ἄν-* = Idg. **ǵ-* (I § 253 p. 207): Umbr. *antakres* 'integris' Osc. *an-censto* fem. 'incensa, not valued'.

In Italic, Idg. **ne* 'not' was also restricted to use in compounds, as Lat. *ne-fās*.

Class III. Lat. *com-mōtus* Umbr. *comohota* 'commota', Lat. *con-ceptus* Falisc. *cun-captum* 'conceptum', Lat. *con-ventiō con-ventus* Osc. *kúm-benniefis* gen. 'conventus'; O.Ir. *com-* e. g. *ro co-scad* 'correptus est'. Lat. *per-emptus per-versus* Umbr.

per-etom 'peremptum': Skr. *pari-vṛtta-s* 'turned about' Lith. *pér-versta-s* 'reversed, changed'. Lat. *ab-ditus*: Gr. ἀπό-θετος 'set aside, secret', *ab-ductiō*: Mid.H.G. *abe-zuht* 'a drawing away'. Lat. *por-tentum por-rectum* Umbr. *pur-ditom* 'proditum': no doubt to be compared with Gr. πάρα (Stolz, Arch. f. lat. Lexicogr. II 498 f.).

Lat. *inter-mē(n)stris inter-mēnstruos* Umbr. *anter-menzaru* 'intermenstruarum', cp. Lat. *inter mēnsēs*. Lat. *amb-urbium*, Osc. *am-vīanud* abl. of the stem *am-viano-* 'that which lies on both sides of the way', hence 'vicus, platea' (cp. Bücheler in Nissen's Pomp. Studien 499). Lat. *per-nox per-dius* (*per noctem, per diem*); *per-fidus* (*per fidem fallere*). *sub-jugu-s* (*sub jugō*). *ante-novissimus* (*ante novissimum*).

Idg. **ne* 'not', as has been said above (Class II), was restricted in Italic to use in composition, as Lat. *ne-fās*.

Lat. *ad-modum. in-vicem. af-fatim* 'to satisfaction'. *dē-nuō* for *dē novō* I § 172 p. 152. *ilicō* for **in slocō* 'on the spot'. I § 81 p. 73. *pro-fectō* for **prō factō* properly 'as good as something done' I § 682 p. 549. Many such phrases were reduced to single words largely through the enclisis of the noun and the isolation caused by phonetic change.

§ 36. Class IV. In Umbrian *desen-duf* corresponds to the Lat. *duo-decim* (§ 16 p. 32), cp. Gr. δέκα δύο beside δώ-δεκα. Lat. *ūn-decim*, explained in I § 633 p. 474 as standing for **ūnu(s)-decim*, may contain other case-forms; according to Wackernagel (Kuhn's Ztschr. XXV 284) it stands for **ūnum-decim*, cp. Gr. ἑν-δεκα.

Lat. *Ju-piter Juppiter* is said (no doubt correctly) to be = Gr. Ζεῦ πάτερ, and is therefore a vocative used as nominative (I § 612 p. 463), Umbr. *Iu-pater*. Lat. *Diēs-piter*, gen. *Diēs-pitris*; an analogous form is *Mars-piter*, also *Māspiter* (I § 269 p. 217). The words *postrī-diē cottī-diē* (*cottī-* for **quettī-*, see I § 419 p. 307, § 431 p. 320, originally meaning 'on which-soever day of a series'; Wackernagel, Kuhn's Ztschr. XXIX 147 gives a different explanation), and *merī-diē* (properly 'in the clear

day', from *meru-s*, see Stowasser, Archiv f. lat. Lexicogr. I 273 ff.) contain two locatives. The nom. *meridiēs* is like the Mod.H.G. *die mitternacht* 'midnight', which comes from the gen. dat. *mitter nacht* 'at midnight', and *cottidianu-s meridiānu-s* like *mitternächtig*.

We have a group of words which did not become compounds until the literary period of Latin: *holus atrum*, *rōs marīnus*, *fēnum Graecum*, *jūs jūrandum*, *rēs publica*, *alteruter* etc.: gen. *holusātrī* beside *holeris atrī*¹⁾, *rōsmarīnī* beside *rōris marīnī*, *alterutrīus* beside *alterius utrīus* and so forth (Neue, Formenl. I² 590 f.).

Sacraviēnsēs from *sacra via*, *quartadecumānī* from *quarta decuma* (*legiō*).

In some cases the initial member follows the analogy of Class I: *Aquiflaviēnsēs* from *Aquae Flaviae*; *equiferī* 'wild horses' *ovifer* 'wild sheep' instead of *equos ferus* and *ovis fera*, influenced no doubt by the type of Greek compounds like *αἰγ-αγρος* 'wild goat' *οἰ-αγρος* 'wild boar' (cp. the Author, Rhein. Mus. XLIII 404); *multi-modīs*, *omni-modīs* instead of *multis modīs*, *omnibus modīs* (Danielsson, *Studia grammatica*, Upsal. 1879, p. 51).

In the literary period of Latin, phrases like *aquae ductus* and *aquae ductiō*, *agrī cultūra*, *plēbis scītum*, *fidei commissum*, *capite cēnsi*, *jūre cōnsultus* etc. became compounds. Then, by a transition to Class I, *aqui-ductus*, cp. *aqui-dūcus* 'ὁ ἀγρωγός'. *pater-familiās*, like Mod.H.G. *mutter-gottes*, 'mother of God' *leib-brōt* 'loaf of bread' (O.H.G. *leip prōtes*) Pol. *štuka-mięsa* 'piece of meat'.

**quot annī*, **quot mēnsēs*, originally relative clauses (cp. Gr. *ὁσημέραι* 'daily'), in course of time ceased to be regarded as such, and then the compounds *quotannīs*, *quotmēnsibus* were

1) The *i* of the form *holisātra* (Apicius) was due to the analogy of compounds of Class I like *multi-sonus*; for the formation is too late to admit of the supposition that it was caused by the natural course of phonetic change, as in the second syllable of *ilicō* for **inslocō* (I § 81 p. 73.)

formed, like *his annis* (Wackernagel, Kuhn's Ztschr. XXIX 146 f.). Cp. Lith. *kas-vākara* § 46.

breve iter, *longum iter* became *breviter*, *longiter*, and so forth. Thus arose the adverbial suffix *-iter -ter*. See Osthoff, Archiv f. lat. Lexiogr. IV 455 ff.

nu-dius tertius 'the day before yesterday', properly equivalent to 'nunc dies tertius' (*nu* = Skr. *nú* Gr. *ν* etc.). Hence *nudius-tertiānu-s* 'belonging to the day before yesterday'.

male-volēns, *male-dicēns* (from which were formed *malevolentissimus*, *maledicentior*, cp. Mod.H.G. *tieffühlendst*, *freigelegener*). *bene-volēns*. Derivatives of these are *malevolentia benevolentia*, and on their analogy were formed *malevolus benevolus*, *maleficus beneficus* for the older forms *mali-volus beni-volus*, *mali-ficus beni-ficus* (Class I, cp. *benignus* for **beni-gnu-s*, I § 619 p. 466 f.). A compound found in Tertullian, *altēgradius* = *altē gradiēns*, shows the same type as *male-volus*.

In later Latin, as we have already seen (§ 33 p. 57), this class grew more and more extensive. Especially where the inflexional differences of the cases had disappeared, and the first member of the compound consequently lost its proper meaning as a case, compounds of Class IV came more and more into favour. By far the greatest part of the nominal compounds now found in the Romance languages belong to this class. This disuse of Class I, in favour of Class IV is most clearly seen in 'epithetised' compounds, as French *rouge-gorge* 'red-gullet' *pattepelue* 'hairy-paw' i. e. 'fawner, sneak'. See A. Darmesteter, *Traité de la formation des mots composés dans la langue française* etc., Paris 1875.

Old Irish.

§ 37. Class I. The final vowels of the stem of the initial members were accurately preserved only in Gallic. In Irish they suffered syncope and disappeared (I § 634).

Stems in *-o-*. O.Ir. *ech-rad* fem. (collective) 'horses': Mod. Cymr. *eb-rwydd* 'quick' Gall. *Epo-rēdia*, pr. Kelt. **ekyo-rēdā-* (as to the second part, see Zimmer, Kelt. Stud. II 24), beside O.Ir. *ech*

'horse', Skr. *áśva-* Gr. ἵππο- etc. O.Ir. *dag-duine* 'bonus homo', from *dag* 'bonus'): Gall. *Dago-vassus*. O.Ir. *Doman-gart*: O.Cymr. *Dofn-garth*, Gall. *Dubno-rīx Dumno-rīx*, from *domun* 'world'; *doman-* for **domno-* through the intermediate stage **domp-*, see I § 623 Rem. 1 p. 469. Gall. *vergo-bretus* name of a magistrate amongst the Aedui, = 'cuius iudicium efficax est', beside O.Cymr. *guerg* 'efficax'; *Nerto-mārus* from *nerto-* 'strength, might'. In Irish the change of *t, c* to *p, χ* (*th, ch*) at the beginning of the second member indicates that the first originally ended in a vowel (I § 514 p. 375 f., § 658 p. 510), as *fīr-threbaire* 'true wisdom' from *trebaire*, *nocht-chenn* 'bare-headed' from *cenn*. The same is true of the *f* in such compounds as *find-folt* 'white hair' from *folt*, and the *s* in compounds like *macc-slabrad* 'plaything' from *slabrad* 'chain' (I § 576 p. 431, § 658 p. 510). Where the second member began in a sonant, -o- disappeared in proethnic Keltic: e. g. O.Ir. *find-airgit* 'white silver' (cp. Gall. *Vindo-magus*) *fīr-aingliu* 'veros angelos'; so in Gallic we find *Art-albinnum* beside *Arto-briga* as compared with O.Ir. *art* 'stone'; here too should be classed compounds like Mid.Ir. (*h*)*usal-athair* 'patriarch' ('august father'), if the elision of -o- in this position was later than the loss of initial *p-* (I § 339 p. 268).

Remark. In Gall. -u- is sometimes found instead of -o-, e. g. *Virdumārus* and *Virdo-mārus*, *Adiatu-māru-s* and *Adiato-rīx*, and sometimes -a-, as *Reita-genus* (Esser, Beitr. zur gallo-kelt. Namenkunde I 5. 6 f.). These differences are due in part to an inexact representation of unaccented vowels in writing, but in part also to dialectic variation.

O.Ir. *aīli-thir* 'stranger, pilgrim' from *alio-* and *tīr* 'terra'. *nūe-litridi* acc. 'novos, recentes litteratores': cp. Gall. *Novio-danum* 'Newtown'.

Stems in -a-. It may be assumed that -o- was regularly found even in proethnic Keltic (§ 12 p. 24 f.). Gall. *Teuto-bōdiac* *Touto-bociō* beside O.Ir. *tuath* f. = Goth. *þiuda* f. 'people', common ground-form **teytā*, so that no doubt O.Ir. *Tuath-char* and

1) With this combination of adjective and substantive, and with those to be mentioned below compare § 39.

Brugmann, Elements. II.

O.Cymr. *Tut-ri* originally had *-o-*. O.Ir. *dāl-tech* 'forum' (house of assembly) *dāl-suide* 'forum' (seat of assembly) from *dāl* f. O.Ir. *briathar-chath* 'battle of words' for **brētro-* through the intermediate stage **brēt̪r-*, beside *briathar* f. 'word' for **brētra-* (I § 623 Rem. 1 p. 469, § 634 p. 475).

Stems in *-i-*. O.Ir. *muir-bran* 'mergus' (sea-raven) from O.Ir. *muir* n. 'sea' for **mori*: Gall. *Mori-tasgus Mori-dūnum*. In these and other words the palatalisation of the last consonant of the first member is an obvious trace of the *-i-* which once stood before it (cp. *buaid-lia* 'fornix', properly 'triumphalis lapis' from *buaid* n. 'victory', *sain-chenelæ* 'proprium genus').

Stems in *-u-*. O.Ir. *cath-buadach* 'victorious in battle' *cath-lach* 'battle-host, assembled fighting men' *cath-charpat* 'battle-chariot' from *cath* 'battle': Gall. *Catu-slōgus* (= *cath-lach*) *Caturīgēs*, O.H.G. *hadu-*. *bith-beo* 'semper vivus', from O.Ir. *bith* 'world', which when used as the first member of a compound took the meaning 'everlasting, ever' (cp. § 4 p. 6): Gall. *Biturīgēs*. *fid-bocc* 'ligneus arcus', from *fid* 'wood, tree', O.H.G. *witu* 'wood'.

To determine the chronology of the loss of the final vowel in the first member, we have the evidence of such forms as the nom. pl. *gnīmartha* beside sing. *gnīm-rad* 'act, deed', compared with the *u*-stem *gnīm*, cp. *ech-rad* above. Since *-ar-* came immediately from *-r-*, and this came from *-rē-* (I § 634 p. 475), the stem-final of the first member must have already disappeared before the process of *samprasāraṇa* began. Indeed, even in Gallic we find *Lūgdunum* for *Lugu-dūnum* (Dio Cass. XLVI c. 50 τὸ Λουγούδουνον, *rūr δὲ Λούγδουνον καλούμενον*).

Stems in *-n-*. For these the form in *-o-* is substituted, as in Gr. *στῆ-κρήνον* (§ 12 p. 27); e. g. Mid.Ir. *talam-chumscugud* 'earthquake' from *talam*, gen. *talman*, f. 'earth'.

Stems in *-r-*. The examples of these stems are not free from difficulty. O.Ir. *athar-gein* 'procreation (of the father)' *māthar-marbthach* 'matricide' *māthar-lach* 'inatrix', the *-thar* being no doubt for **-tr-o-* (cp. Gr. *μητρ-ο-κτόνος*). *athr-amil* 'patri similis' *mādr-amil* 'matri similis' beside forms like *sain-*

samail sain-email. Where the final member begins in a sonant: *athir-oircnid* 'patricide'. *sethar-oircnid* 'murderer of a sister' is no doubt modelled on forms like *máthar-marbthach*, where the gen. sing. determined the type.

Stems in Explosives. All of these must have had *-o-*. O.Ir. *carat-rad* 'friendship' from *cara*, gen. *carat*; compare Gall. *Carent-o-magus*. Mid.Ir. *oiged-chaire* 'friendship between guest and host' from *oegi*, pl. *oegid* 'guest'. O.Ir. *rīg-thech* 'king's house' *rīg-fáith* 'royal poet' from *rī*, gen. *rīg*, 'king', cp. Lat. *rēg-i-fugium*. Cp. also Gall. *Cinget-o-rīx* beside *Cinges* gen. *-etis* O.Ir. *cing*, acc. *cingid*, 'vir fortis, heros'; Gall. *Brig-o-banne* and **Brig-o-gilum* (whence the modern *Brigueil* and *Briulles-sur-Bar*), beside O.Ir. *bri*, gen. *breg*, 'rising ground'.

Stems in *-es-* show in Irish the same type as Gr. *εἰρο-κόμος*. O.Ir. *teg-lach* 'household, familia' (O.Cymr. *teulu* 'familia'), beside *tech* n. 'house' = Gr. *στέγος*, *tecnate* 'domesticus, familiaris' for **tech-gnate* (the spirant having been assimilated to the initial consonant of the second member) a derivative from **tech-gnath* (*gnath* 'consuetus'). O.Ir. *leth-cholba* 'the pillar by the side, the second pillar', *led-marb* 'half dead', from *leth* n. 'side, half'. It is probable that Gallic names like *Cartis-mandua Civis-mārus* (see Zeuss² 785. 853) represent the same type of compound as Gr. *ἐπισ-βόλος*; yet it is at least possible that a vowel has fallen out after the *-s-*, cp. e. g. gen. *Viscari* for **Visu-cari*.

§ 38. Class II. Idg. **ǵ-* 'un-' appears in Irish in different forms according to its phonetic surroundings. *ǵ-* before *t*, *c*: O.Ir. *ǵ-tromm* 'not heavy, light' *ǵ-cain* 'indecent'; but in Cymr. *an-*, as *annheilwng* 'unworthy': O.Ir. *ǵtualng-ithe* 'indignatus', cp. Mod.Cymr. *cant*: O.Ir. *cēt* 'hundred', I § 243 p. 201. *in-* for **en-* before *d*, *g* (cp. I § 520 p. 378): O.Ir. *in-derb* 'incertus' *in-gnad* 'insolitus'. *an-* before vowels, Idg. **ǵn-* I § 243, 4 p. 202: O.Ir. *an-eolas* 'inscientia', beside *edla* 'gnarus', *an-se* 'heavy' beside *asse* 'light'. By analogical transference *an-* came to be used before explosives, even in O.Ir.: *an-cretem* 'infidelitas', *an-dach* 'nequitia', *an-glan* 'immundus'. Further examples of this

kind are *an-fiss* 'inscitia', *an-bsud* 'instabilis' (*foss* 'quietude'), Mid.Ir. *ain-mine* 'roughness' and the like.

do- du- in *do-chruth* 'deformed' etc.: Skr. *duṣ-*, cp. § 14 p. 29. The opposite of this, *so- su-* = Idg. **su-*, is kept in Keltic (as in Armenian, § 28 p. 46) only in composition: O.Ir. *so-nirt* 'good in strength, strong' from *nert* 'strength', *su-thain* 'everlasting' from *tan* 'time'.

Class III. O.Ir. *cuim-rechta* 'alligatus' beside *con-riug* 'alligo': cp. Lat. *com-ēsus*. *es-arte* 'caesus, expalmat' beside *es-arcon* 'excisio': cp. Gr. ἑξ-αίρετος 'selected'. *etar-scarthi* 'divisa': cp. Lat. *inter-fectus*. *acsiu* 'act of seeing' dat. *acsin* beside the pres. *ad-chiu*: cp. Lat. *ad-emptiō*.

O.Ir. *ess-amin* Mod.Cymr. *eh-ofyn* 'fearless' Gall. *Ex-obnus* *Ex-omnus*, from pr. kelt. *ex* 'out' = Lat. *ex* and (O.Ir.) *omun* 'fear'. Gall. *Ambi-rēnus* (around the Rhine), *Ad-lēdus* ('by the river Ledus'), *Are-morica* ('before the sea').

O.Ir. *ro-*, an intensive particle, as *ro-mōr* 'very great' *ro-chain* 'very beautiful', stands for pre-Keltic **pro-* (I § 339 p. 268): cp. Gr. *πρό-καλος* 'very beautiful' *πρό-κακος* 'very bad'. O.Ir. *ēr-er-*, also an intensive particle, as *ēr-chosmil* 'very similar' *ēr-chian* 'very long', comes from **ex-ro-*; for the loss of the *-o* see I § 634 p. 475.

§ 39. Class IV. Besides compounds in which an adjectival stem was followed by a substantive (Class I), in Irish, as in the other Indo-Germanic languages, inflected adjectives were combined with substantives. Such phrases often developed into compounds, and this process was all the more natural because the adjective lost the characteristic inflexion of many of its cases, and thus the phrase looked like a compound of Class I. Hence the two groups overlapped, and in particular instances it is difficult to decide how the compound arose. In none of these words have we any clear traces of the destructive influence which the accent elsewhere exerts upon the final members of compound words, e. g. *drog-scēla* 'malinuntii' *dag-gnīm* 'good work' (I § 685 p. 552), and therefore we might in all cases decide in favour of Class IV. But there

is nothing to prevent our assuming that compounds belonging to Class IV influenced the accent of those of Class I. See Zimmer, Kuhn's Ztschr. XXIV 224 f., Kelt. Stud. II 19 ff. We shall find a similar confusion of two different types of composition in High German, § 44.

Germanic.

§ 40. Class I.

Stems in *-o-*. Where the second member began in a consonant the vowel seems always to have survived in protoethnic Germanic. In Gothic we find stems sometimes with *-a-* and sometimes without, but no rule has yet been discovered to account for this difference, although it must be connected with some variation of accent¹): *guda-faurhts* 'God fearing' *gud-hūs* 'God's house' from *gup* 'God', *aina-baur* 'innate, native' *ain-falps* 'simple' from *ains* 'one', *laus-a-vaurds* 'speaking folly' *laus-qiprs* 'with empty stomach' from *laus* 'loose, empty, null', *akrana-laus* 'fruitless' from *akran* n. 'fruit', *piudan-gardi* f. 'king's house' from *piudans* 'king'. In West Germanic, where the vowel still appears as *o* in the oldest monuments (I § 83 Rem. I p. 77), the law of syncope described in I § 635 p. 476 was in operation; but its results were largely obscured by new formations. The following are examples of the regular developement. O.H.G. *tago-sterno taga-stern* 'daystar, morning star', *spilo-man spila-man* 'player', *wego-wīso wega-wīso* 'guide'. On the other hand we find *boum-garto* 'orchard', *wīn-rebe* 'vine', *himil-zungal* 'stars of heaven', *houbit-band* 'head-band'. Parallel to these stand such forms as *eban-līh* 'aequalis' *regan-mānōd* 'rainy month' *atum-zuht* 'respiration' *accar-bigengo* 'agricola' *vogal-chrūt* 'chick-weed', which come from prehistoric ground-forms containing **ebno- *rezno- *ēdmo- *akkro- *fuzlo-* (cp. Goth. *ibna-leiks*, *figgra-gulþ* 'finger-ring' and *Austro-valdus*, Count of Toulouse, 588 A. D.). However, it has still to be determined (cp. Kaufmann, Paul-

1) See Holtzmann, Altdeutsche Gr. I 2, 55; Kluge, Kuhn's Ztschr. XXVI 81; Kremer, Paul-Braune's Beitr. VIII 381. 438. Kremer's theory is the least satisfactory.

Braune's Beitr. XII 537 ff.) how far the historical form of the first member may have been due merely to the influence of the uncompounded word (*eban regan* etc.).

Remark 1. In O.H.G. through the partial coincidence of the *i-* and the *a*-declension, *-i-* often intruded in place of *-o-* *-a-*, as *wegi-rih* beside *wego-rih* *wega-rih* 'waybread, plantain' (properly 'way-ruler'). Cp. Rem. 3 *infr.*

The treatment of *-o-* in proethnic Germanic, where the second member began in a sonant, is uncertain (cp. I § 606 p. 459). It is possible that in some forms the hiatus remained (see above, § 12 p. 25), cp. Goth. *galiuga-apaústaúlus* 'false apostle' (from *galiug* n. 'lie'), O.H.G. *sigo-ēra sige-ēra* beside *sig-ēra* 'honour shown for victory'. Elision is by far the most frequent: Goth. *hals-agga* 'curve of the neck, nape' from *halsa-* 'neck', *all-andjō* 'complete' from *alla-* 'all'; O.H.G. *wer-alt* O.Sax. *wer-old* A.S. *wor-old* O.Icel. *ver-öld* 'age of men, period, world' beside Goth. *vair* (stem *vaira-*) 'man', O.H.G. *ein-ougi* A.S. *ān-eāge* O.Icel. *ein-eygr* 'one-eyed' beside Goth. *áins*. O.H.G. *eban-alt* 'equally old' Mid.H.G. *oster-abent* 'Easter-eve, day before Easter' for **ebn- *ōstr-*, show the same analogical change as is seen in O.H.G. *ebano ebanōn* (see I § 215 p. 182 f.); the regular type is preserved in *Vestr-alpus*, an Alemannic chief (Ammian).

Forms containing the suffix *-jo-*. Goth. *alja-kuns* 'of other origin, strange', *frapja-marzeins* 'derangement of mind' (*frapi* n.), and on the other hand, with a long syllable before the suffix, *arbi-numja* 'receiver of an inheritance, heir' (*arbi* n.), *agláiti-vairdei* 'improper speech' (*agláiti* n. 'impropriety'). Cp. the contrast of gen. sing. *harjis* and *hatrdeis*, I § 120 p. 112 f., § 143 p. 128 f., II § 63. In West Gothic *-i-*, not *-ja-*, is found from the sixth or seventh century onwards even in the former class of words. In Old High German *-i-* is universal, as *eli-lenti* 'foreign' *eli-boro* 'alienigena' *heri-berga* 'camp, shelter' *arpi-lōs* 'without inheritance'. It is questionable whether we should assume that *-i-* had appeared after short syllables, as in *eli-* (cp. O.Sax. *eli-lendi* O.Fris. *ili-lende*), before the consonant-strengthening (I § 143 p. 129) and the syncope (I § 635 p. 476) of West Germanic (Sievers, Paul-Braune's Beitr. XII 488 ff.); see

Kaufmann *ibid.* 537 ff. *-iō- -iō-* are frequently found in proper names belonging to different Germanic stocks in the first centuries A. D., as *Χαρίό-μυρος* *Hario-baudes*, *Inguio-mērus*.

Stems in *-ā-*. It may be assumed that even in proethnic Germanic *-o-* was regular (§ 12 p. 25). Goth. *atŕpa-kunds* 'of earthly origin' from *atŕpa* 'earth', *hveila-hvairbs* 'accommodating oneself to the time', *πρόσκαμος* from *hveila* 'time, while'. O.H.G. *heto-man* 'one who prays' *beta-hūs* 'house of prayer' from *beta* 'prayer'; on the other hand *erd-rīhhi* 'kingdom of earth' from *erda*, *brāch-manōt* 'month of the first ploughing, June' from *brācha* 'land broken up'. O.H.G. *ahsal-pein* 'shoulder-bone' from *ahsla* 'shoulder', like *vogal-chrūt*. O.H.G. *erd-aphil* ('earth-apple') 'cucumber, melon' from *erda-*, *scab-īsen* 'shaving tool' from *scaba* 'shaving tool, plane', like *wer-alt*. Mid.H.G. *nādel-aere* 'needle's eye' from O.H.G. *nādлу* Goth. *nēpla* 'needle', like *ōster-abent*. Compare p. 70.

Words containing the suffix *-iē-, -iā-*: Goth. *þūsundi-faþs* 'leader of a thousand' from *þūsundi* f. (nom. pl. *þūsundjōs*) 'thousand'; O.H.G. *sunti-lōs* 'sinless' from *suntia suntea sunta* 'sin', *redi-haft* 'eloquent' from *redia reda* 'speech', like *eli-lenti*; see above.

Remark 2. In these feminines *-o-* and *-a-* often occur as well as *-i-*, e. g. *redo-haft reda-haft*, *hella-fiur* 'hell-fire' (from *hellu* Goth. *halja* 'hell'). Here analogy has been at work; this new formation spread in the *-iē- (-iā-)* stems, not in those with *-iō-*, because the sonant *-i-* which stood at the point of juncture was not supported in the former class of stems as it was in the latter (cp. *heri-berga* beside nom. acc. *heri*) by the case-forms of the uncompounded word; the *-i-* of the compound was especially liable to alteration after the *ī* of the original word had been completely assimilated to the preceding group of consonants.

Stems in *-i-*. In proethnic Germanic *-i-* was no doubt kept in all compounds whose second member began in a consonant. Goth. *-i-*, as *gasti-gōþs* 'hospitable' from *gasts*, *draúhti-viðþ* 'service in war, fight' cp. *ga-draúhts* (stem *ga-draúhti-*) 'warrior'; rarely the *-i-* is lost (cp. the loss of *-a-* above): *brāþ-faþs* 'bridegroom' from *brāþs* 'bride', *þut-haúrn* 'horn for blowing' from **þuti-* 'noise, sound' = O.Icel. *þytr* Mid.H.G. *duz*. In O.H.G.

the forms are syncopated according to rule. *steti-got* 'genius loci' *turi-sūl* 'doorpost, post', but *tāt-rahha* 'narrative of what has happened' *gast-hūs* 'strangers' shelter' *truh-sāzo trut-sāzo* (Mid.H.G. *truht-saeze*) 'lord high steward'.

Remark 3. In O.H.G. through the partial coincidence of the *i-* and the *o-* declension *-o-* *-a-* often took place of *-i-*, as *scrita-māl* beside *scriti-māl* 'pace, step' from *scrit*, pl. *scriti*. Cp. Rem. 1 above.

Stems in *-u-*. In proethnic Germanic *-u-* always appeared in compounds whose second member began in a consonant. Gothic has always *-u-*, as *faihu-gairns* 'covetous' from *faihu* 'cattle, possessions', *filu-faihs* 'very various' from *filu* 'much, very'. In O.H.G. the forms were altered by the law of syncope: *fihu-wiari* 'cattle-pond', *filu-sprahhi filo-sprahhi* 'speaking much', *witu-hoffa wito-hoffa* ('wood-hopper') 'hoopoe' from *witu wito* 'wood', *Hadu-mār* proper name (*hudu-* 'battle': Gall. *catu-*), but on the other hand *tōd-līh* 'mortalis, mortiferus' from *tōd* = Goth. *dáuþu-s* 'death', *hungertag* 'day of fasting' for **huwagru-* (cp. *accar-bigengo* p. 69) cp. Goth. *hūhru-s* 'hunger'.

Stems in *-n-* in proethnic and later Germanic show the same type as Gr. *xlō-xqārov* (§ 12 p. 27). Goth. *guma-kunds* 'of the male sex' O.H.G. *gomo-heit goma-heit* 'persona' beside Goth. *guma* O.H.G. *gomo* m. 'human being, man', cp. Lat. *homi-cida* p. 60. O.H.G. *hano-crād hana-crāt* 'crowing of a cock' from *hano* Goth. *hana* m. 'cock'. O.H.G. *namo-haft nama-haft* 'having a name' from *namo* m. Goth. *namō n.* 'name'. Goth. *auga-daūrō n.* ('eye-door') 'window' O.H.G. *oug-brāwa* 'eyebrow' from Goth. *augō* O.H.G. *ouga n.* 'eye'. O.H.G. *herz-blīdi* 'heartily agreeable' from *herza* Goth. *hairtō n.* 'heart'. When the second member begins in a sonant: O.H.G. *brunn-adara* 'vein of a spring' from *brunno* Goth. *brunna m.* 'spring, brook'.

Remark 4. It is noteworthy that the type of compound containing a genitive (Class IV), such as *hanin-fuoz*, *Franchōno-lant* (§ 44), common enough even in O.H.G., in later times continually encroached upon the stem-compounds of Class I, particularly in the Modern period. The chief factor in this development was the circumstance that *-en* came ultimately to be the ending of other cases besides the genitive, and hence lost its originally definite character. Cp. J. Grimm, D. G. II (1878) p. 528. 591 ff.

Stems in *-r-*. In Gothic we have the form *brōþru-lubō* 'brotherly love'; it is uncertain whether the first part represents Idg. **bhrātṛ-* (I § 299 p. 237 f.), or whether, like the nom. pl. *brōþrjus*, it was a new form modelled upon the *u*-stems. *brōþr-a-lubō* also occurs, cp. Gr. *πατρ-ο-φόνος* etc. O.H.G. *pruodar-līh* 'brotherly' may be variously explained; *fatar-erpi* 'patrimonium' is in any case a new form instead of **fatr-*. We also find *pruader-līh* *fater-līh* and the like, where *e* is due to the influence of the inflected forms of the uncompounded word.

O.H.G. *fiant-līh* 'hostile' *friunt-līh* 'friendly', *fuoz-scamil* 'footstool', like Gr. *δρακοντ-ό-μαλλος*, *ποδ-ο-στέρας*. At the same time it must be observed that in O.H.G. many of these consonantal stems have gone over bodily to one of the vowel-declensions, e. g. *mānōd* 'month' (Goth. still has dat. sing. *mēnōþ* nom. pl. *mēnōþs*), with which compare e. g. *mānōd-sioh* 'lunaticus'.

Stems in *-s-*. Goth. *sigis-láun* 'prize of victory' (cp. Goth. *Sigis-mēres* Burg. *Sigis-mundus* O.Frank. *Sigis-bertus* etc.) from *sigis* n. 'victory' (stem *sigis-a-* or *sigiz-a-*): Skr. *sáhas* n. O.H.G. *egis-līh* 'horrible' beside Goth. *agis* n. 'fear' (stem *agis-a-*), cp. also O.H.G. *egis-o* m. 'fright' *egis-ōn* 'frighten' like Gr. *συχ-ε-φόρος*. The following may also belong to this group, if they have lost the vowel of the suffix *-es-*: Goth. *þrūts-fill* A.S. *ðrust-fel* (for **ðruts-*) 'scab' and A.S. *Hēns-brōc*, name of a place, compare probably O.Icel. *hōns* (only in pl.) 'fowls'. Rather more frequently we have *-es-* stems extended by *-o-*: Goth. *áiz-a-smīþa* O.H.G. *ēr-smid* 'copper-smith', O.H.G. *Lembir-bah* (cp. *Kelbiris-bach* with the gen. sing., Class IV) Mid.H.G. *eier-vel* (A.S. *ǣzer-felma*) 'skin of an egg', Mid.H.G. *rinder-hirte* 'cowherd' (A.S. *hrýðer-heord* 'herd of cattle'). After *-er-* became a sign of the plural (§ 132) the first member of these compounds took a plural meaning (*rinder-hirte* = 'herdsman of cattle').

Remark 5. The transference of these stems to the *o*-declension (§ 132), caused by the loss of the final *-*os* in the nom. and acc. sing., gave rise to alterations of the stem in compounds, on the model of the *o*-class; thus O.H.G. *rind-stal*. The oldest example of this type is perhaps

the form *requa-* 'darkness' (cp. Goth. *riqis* Skr. *rdjas-*), seen in *requalicuhano*, which occurs on an inscription of the second or third century A. D. (found in the District of Cologne), if Holthausen is right in explaining it as 'living in the darkness'; but perhaps it is better to refer it to the analogy of nom. **requaz* : **colfa-z*.

§ 41. In many compounds, in Germanic as in Greek and in Slavonic (§ 30. 47), the popular conception of the first member underwent a change, and the latter was regarded as having a verbal instead of a nominal force.

Thus in O.H.G. first of all nominal stems in *-i-* (for an original *-i-*, *-iō-*, *-iā-* or *-iē-*) came into immediate connexion with verbs in *-ien*, e. g. *spuri-* in *spuri-hunt* 'hunting-hound' (Mid.H.G. *spür spur* f. n. 'trace, track') came into connexion with *spurien spurren* 'to trace'; *smelzi-gold* ('melted gold') 'refined gold, standard gold' (*smelzi* n. 'gloss produced by melting, enamel') with *smelzen* (Goth. **smaltjan*) 'liquefy'; *decche* (older **decchi-*) seen in *decche-lachen* 'cloth or sheet for covering' (*decha*, older **decchia*, 'covering') with *decchen* (O.Icel. *þekja*) 'to cover'; *slengi-stein* 'sling-stone' (*slenga*, older **slengia*, 'sling') with *slengen* (O.Icel. *slengva*) 'to sling, hurl'. Hence numerous new formations whose initial members were real verbal forms, as *deni-lachan* 'cloth for spreading out, tent-cloth' from *denen* 'to spread out', *wezzi-stein* 'whetstone' from *wezzen* 'to whet'. The next step was to give a new verbal signification to nominal stems ending in original *-o-*; thus O.H.G. *strit-muot* 'eagerness for the fray' *strit-louft* 'race' (*strit* m. 'strife') was referred to *stritan* 'strive', *scelt-wort* 'abusive word' (*scelta* f. 'abuse') to *sceltan* 'to abuse', giving a type which was followed by large number of new formations like *melc-faz* 'milk-vessel' from *melchan* 'to milk'. Then, when the *ō* and *ē* in inflexional syllables had sunk to *e*, which also represented *a* and *e*, when e. g. *beta-hūs* 'house of prayer' and *betōn* 'to pray' had become *bete-hūs beten*, and *lina-berga* 'railing, trellis' and *linēn* had become *line-berga linen* respectively, the numerous forms of this kind gave a fresh impulse in High German to the verbal interpretation of the initial members of compounds, and the new type of formation already established was taken into yet wider use; e. g. Mid.H.G. *lebe-site* 'manner of life' from *leben* 'to live'.

Remark 1. In Mid.H.G. the stems of all classes of verbs had begun to be used in the initial part of compounds, and the number of such verbal compounds has been considerably on the increase down to modern times. There were always a number of words which to the popular consciousness appeared halfway between nominal and verbal compounds; as do even now such words as *streit-lust*, *tanz-lust*, *schlummer-stätte*, *raub-vogel*, cp. *streit* and *streiten*, *tanz* and *tanzen* etc. [Similar uncertainty is felt in English with regard to compounds like *shoe-room* *paint-brush* *watch-tower* *slaughter-house*.] But such forms inevitably came to be regarded as verbal when the noun was no longer used uncompounded, e. g. in *bethaus*, which was formed from O.H.G. *beta* Mod.H.G. *bete* 'prayer', but, when this noun was lost, was of necessity connected with the verb *beten*.

Remark 2. The same process of analogical formation arising from a new interpretation of nominal stems is found in the other West Germanic dialects and in those of Scandinavia; whether it also took place in Gothic is doubtful. See Osthoff, *Verbum in der Nominalc.* p. 10 ff.

Remark 3. Connected with this is another characteristic of High German which may be mentioned here; — the new meaning given to the initial member of adjectival compounds in *-bar*, *-lich*, *-haft*, *-sam*. E. g. O.H.G. *danc-bāri* Mid.H.G. *danc-baere* at first meant exactly 'gratias (re-) ferens' (O.H.G. *danc* Goth. *þagks* 'thanks'), O.H.G. *scin-bāri* Mid.H.G. *schin-bære* literally meant 'bearing an appearance, having an appearance'. Now when the second member had acquired the character of a suffix, the first was referred to the verb to which it was akin (Mid.H.G. *danken* and *schinen*). Hence further new formations like Mid.H.G. *hel-baere* 'seeking to hide oneself' Mod.H.G. *trink-bar anwend-bar* etc., in which the second member is used like a primary suffix. See Osthoff loc. cit. p. 112 ff.

§ 42. Class II. Germ. *un-* 'un-' before consonants and before sonants: Gr. *ἀ-* *ἀν-* etc. Goth. *un-kunþs* O.H.G. *un-kund* 'unknown': cp. Gr. *ἄγνωτος*. Goth. *un-veis* O.H.G. *un-wīs* 'inexperienced': Lat. *in-vīsus*; Goth. *un-viss* 'uncertain': Gr. *ἄωτος* 'unseen, unknown' (cp. *ἄωτος* § 31), cp. I § 527 p. 382. Goth. *un-agands* 'not fearing'; O.H.G. *un-ende* n. 'endlessness': Skr. *an-antā-s* 'endless'. Germ. *tuz-* 'ill-, mis-' = Gr. *δυσ-*: Goth. *tuz-vērjan*, a denominative formation, 'to doubt' ('be chary of faith'), O.H.G. *zur-wāri* 'suspiciousus, suspectus'.

In the course of the separate development of Germanic several particles were restricted to use in composition, e. g. *fra-* = Gr. *φρό* in Gothic and in West Germanic.

§ 43. Class III. Goth. *fra-kunþs* A.S. *fra-coð* 'despised': cp. Skr. *prá-jñāta-s* 'different, recognisable'. O.H.G. *frá-tat*

'transgression': cp. Gr. *πρό-θις* 'a setting forth', Lith. *pra-dėti* 'to begin' *prā-džia* 'beginning'. As regards the accent see § 19, 3 p. 37. Goth. *af-stass* f. 'separation, defection': cp. Gr. *ἀπό-στας* 'separation, defection'. O.H.G. *in-ziht* f. 'accusation': Lat. *in-dictiō*, Gr. *ἐν-δείξις* 'an information'.

Goth. *anda-nahti* n. 'the time towards night': cp. Lith. *añt-kaklė* 'that which one has on one's neck (*añt kāklo*), burden', Gr. *ἄντα, ἀντί. ὑφ-ἀίψις* 'under an oath, bound by an oath': cp. Gr. *ὑπ-αυτίδιος. φαύρα-δαύρι* 'that which is before the door, street': cp. Gr. *παρα-θαλάσσιος*.

Goth. *miþ-gasinþa* m. 'travelling companion', Mid.H.G. *mit-erbelinc* 'co-heir': Gr. *μέτα*. Goth. *ufar-fullei* O.H.G. *ubar-fulli* f. 'superabundance': Skr. *upári*.

O.H.G. *niwih* Mid.H.G. *niht* 'nothing' contrasted with Goth. *ni vathts* 'nothing' *ni vaihtái* 'in nothing, not at all': Goth. *vaihts* 'thing, something'; we have also O.H.G. *neowih* 'nothing' for *ni ēo wih* 'no thing at all'. O.H.G. *neoman* Mid.H.G. *nieman* 'no one' for *ni ēo man*, cp. Goth. *ni manna* and *manna ni* 'no one'.

§ 44. Class IV. O.H.G. *drī-zug* A.S. *drī-tig* 'thirty' = Goth. *þreis tigjus*, acc. *þrins tiguns*; O.H.G. *zwein-zug* A.S. *twāen-tig twēn-tig* 'twenty' was derived from old phrases containing a dative, cp. Goth. *tváim tigum* 'duabus decadibus'. Other instances of this kind do not occur until later periods. Thus Mod.H.G. *jung-geselle* 'bachelor' *neu-jahr* 'New Year' *ober-rock* 'overcoat' are from the Mid.H.G. phrases *junc geselle* 'young comrade' *niuwe jār*, *ober roc*, and these forms are therefore stem-compounds (Class I) only in appearance. Mod.H.G. *jeder-mann* 'every one', gen. *jedermanns*, from *jeder munn* 'every man'. From the common phrases in which a preposition (*ze, in* etc.) was combined with a place-name consisting of adjective and substantive, arose new nominative forms, as Mid.H.G. *Höhen-burg*, *Höhen-vels*; cp. the nom. sing. *Schwāben* from *zen Swāben* (dat. pl.).

Many compounds in Germanic contain the genitive. In High German these continually grew more numerous; their

development out of mere phrases may often be traced in the literary monuments of the language, e. g. Mod.H.G. *hungers-nōt* from Mid.H.G. *hungers nōt*, *Baierland* from O.H.G. *Beierolant*.

O.H.G. (Alemann.) *Zios-tac* A.S. *Tiwes-dæz* O.Icel. *Týs-dagr* 'Tiu's (Zio's) day, Tuesday', cp. gen. Gr. $\Delta\iota(F)-\acute{o}\varsigma$ Skr. *div-ás*. Similarly O.H.G. *donares-tag* A.S. *ðunres-dæg* O.Icel. *þórs-dagr* 'Thursday'.

Goth. *baúrgs-vaddjus* 'wall of a fortress or city' from *baúrg* 'fortress, city'. Instead of *dulgis skula* 'he who has a debt (*dulg-s* m.) to pay, debtor' (Luke 7, 41) it is perhaps better to write *dulgisskula*. Crim.-Goth. *hæmis-clep* would no doubt in Wulfila's Gothic appear as **háimis-hláifs* 'house-bread'.

O.H.G. *gotes-hūs* 'God's house', *hundes-fluoga* (beside *hunt-fluoga*) 'dog-fly', *Suābo-lant* 'Swabia', *hanin-fuoz* 'crow-foot' (name of a plant, lit. 'hen's-foot'), *ohsin-zunga* 'ox-tongue' (name of a plant), *gerstūn-korn* 'barley corn', *Franchōno-tal* 'Frankenthal' (valley of the Franks); with these latter forms containing the gen. sing. or pl. of *n*-stems cp. § 40 Rem. 4 p. 72. In this class (not in Class I, § 40) should no doubt be placed the further examples O.H.G. *truhti-gomo* 'follower' *brūti-gomo* 'bridegroom'. In the Mid.H.G. period first occur compounds with the gen. pl. *aller*, as *aller-best*, *aller-grōzest*; in O.H.G. we have the phrase *allero bezzist*. From the beginning of the Modern period substantives are compounded with adjectives in forms like *manns-toll* (Mid.H.G. *mannes tol*) 'ἀνδραπολις' *geistes-arm* (cp. Mid.H.G. *lasters arm*) 'poor in spirit'.

In Mod.H.G. it was often forgotten that *-s* was a sign of the genitive in such compounds as *hunds-fliege*. Hence many new formations; on the one hand, forms like *hilfstruppen* 'auxiliary troops' *nahrungsmittel* 'means of subsistence, provisions' from *hilfe* and *nahrung*, gen. sing. *hilfe*, *nahrung* (Grimm, D. Gr. II 922); on the other hand forms like *bauersmann reitersmann* instead of *bauermann* 'countryman' *reitermann* 'cavalry-man'. Similarly in English occurs *doomsday*: A.S. *dōm-dæg*, *herdsman*: Mid.Eng. *herde-man*. Cp. § 17.

Remark. Compounds containing a dative or accusative governed by the second member do not seem to occur in Gothic nor in the older periods of High German. In any case we must reject the view (Mahlow, *Die langen Vocale* p. 100) that Gothic *seinai-gairnái* 'φιλαντοι' (gloss on 2 Tim. 3, 2) contains a dat.-loc. and means 'desiring for his own, i. e. for himself'. It is a matter of choice whether to regard this, like the reading *láusaivaúrdái* beside *láusavaúrdái* 'ματτωλόγοι' (Tit. 1, 10), as a mere mistake in writing, or to assume that the scribe wished to represent the sound of *ē* instead of *ā*, following the pronunciation of his day; cp. *Sunjai-frīpas* (Lat. *Suniefridus*) in the Naples Document (Wulfila ed. Bernhardt p. 649), where *ai* is certainly to be read as *ē*.

The close connexion between the nom. sing. *ein* and the oblique cases of *ander*, which was established in O.H.G., produced the Mid. and Mod.H.G. *ein-ander*. In O.H.G. we still find such a phrase as *sie sind ein anderen ungelīh* 'they are unlike each other' (lit. 'one to others'). Cp. Skr. *anyō-'nya-* § 24 p. 41.

Balto-Slavonic.

§ 45. During the proethnic period of Balto-Slavonic only a few new uses seem to have been developed. Two points may be mentioned.

1. The original Indo-Germanic compounds with **p-* 'un-' (Class II) gave way to compounds with **ne* 'not'. Cp. Lith. *ne-gālė* 'weakness, sickness, disease' O.C.Sl. *ne-mostī* 'feebleness, weakness', with Lat. *in-valitūdō* O.H.G. *un-maht*. Besides **ne-*, another particle, which appears in Lith. as *bė*, in O.C.Sl. as *bezū*, and is connected with Skr. *bahiṣ* 'outside, without', had no doubt begun to be used as a negative prefix; cp. Lith. *be-dūgnis* O.C.Sl. *bez-dūnū* 'groundless', Lith. *be-dėvis* O.C.Sl. *bez-bogū* 'godless'.

2. The compound adjectival declension came into use, as Lith. *gerās-is* 'the good (masc.)' = *gėras įs* (I § 147 p. 131), O.C.Sl. *novū-jī novy-jī* 'the new (masc.)' (I § 84 p. 80).

§ 46. Lithuanian.

Class I. The nom. sing. of compounds of this group generally ends in *-is* masc. (gen. *-io*) and *-ė* fem. (cp. § 63).

Stems in *-o-*. Where the second member begins in a consonant, *-a-* is found less and less frequently in the course

of the literary period; the conditions of its loss still need careful investigation (cp. I § 636 p. 477, § 664, 1. 2 p. 522). The old form *veida-mainis* is now *veid-mainys* ('changing the countenance') 'hypocrite' from *vėida-s* 'countenance'. Old form *auksa-kasis*, modern *auks-kasis* 'gold-digger' from *auksa-s* 'gold'. *darbā-vētė* 'place of work' from *dārba-s* 'work', *svetimā-szalis* 'foreigner, stranger' from *svētima-s* 'strange', *gera-dėjis* 'benefactor', *visa-galīs* (beside *vis-galīs*) 'all-powerful, almighty' (or perhaps the last two contain an acc. neut., and belong to Class IV?). *szón-kaulis* ('side-bone') 'rib' from *szóna-s* 'side of the body', *vilka-paūtis* 'wolf's egg' (a kind of malodorous fungus) from *vilka-s* 'wolf', *minkszt-prōtis* 'weak in mind, soft-head' from *minkszta-s* 'soft, tender'. In Prussian -a- is generally kept, e. g. *lauca-gerto* 'partridge' from *lauka-n* acc. 'field', *labba-segisma-n* acc. 'benefit' from *labba-s* 'good'.

Where the second member begins in a vowel, -a- is always dropped, e. g. *vėn-ākis* 'one-eyed man' from *vėna-s* 'one'. In Prussian on the other hand (as in Slavonic, § 47) the stem-final is kept; *dago-augis* 'summer shoot or sprout' beside *daga-gaydis* 'summer wheat' (cp. *deina-algenika-* below, p. 80).

Forms containing the suffix -jo-. We still find -ja- in the older authorities, e. g. *nauja-vedis* 'newly married man' from *naūja-s* 'new'; cp. Pruss. *caria-woytis karige-wayte* 'review' (*g* in *karige-* = *j*), *crauya-wirps* 'blood-letter' from *crauyo krauia* 'blood'. In the modern language -jo- stems are treated as though they were stems in -o- or -i-. The stem-final has been lost e. g. in *jaut-vedė* 'leading-rope for oxen', *jaut-akis* 'ox-eye' (a plant) from *jautis -cžio* 'ox', *vėžligė* 'cancer' from *vėžys* 'crayfish', *krau-leidys* 'blood-letter' from *kraūja-s* 'blood'; examples with -a- are *grėbl-ā-kotis* 'rake-handle' from *grėblis*, *brōl-ā-vaikis* 'brother's son' from *brōli-s*. Cp. also *naujī-kaulis* 'bony excrescence'.

Remark 1. We meet with spellings like *nauj-veda* beside *nau-vedė* 'newly married man', *krauj-gyslė* 'vein of blood', *vėj-malūnis* 'windmill' (cp. *bažnycz-kėmis* beside *bažnyt-kėmis* below). These forms cannot be said to represent the stage preceding the loss of the *j*, which is only restored in them from the uncompounded word.

Remark 2. This treatment of *jo*-stems in composition, which is also found in Lettic, reminds us of the treatment of the same stems where they are extended by derivative suffixes: *jaut-akis* like *jaut-ūžis jaut-ditis* 'little ox'. The form *žem-obūlys* (from *žemė*), which will be noticed further on, should be compared with *kart-ūžė kart-aitė* 'little cow' from *kartė* 'cow'. In Prussian *kel-laxde* 'spear-shaft' (beside *kelia-n* 'spear') seems to correspond to these Lithuanian compounds.

Stems in *-a-*. *-ō-* is quite rare; the example *sziksznó-sparnis* 'bat' was mentioned on p. 25. These stems are usually treated like stems in *-o-*. *galva-žudys* and *galv-žudys* 'murderer' from *galvā* 'head'. *vasarā-sziltis* 'warmth of summer'. *barzd-skutys* 'beard-shaver, barber' from *barzdā* 'beard'. *nugar-kaulis* 'backbone' from *nugarā* 'back'. *bal-ūpė* 'moorland stream' from *balā* 'moor, marsh', *vasar-augis* 'this year's shoot' from *vasarā* 'summer', like *vėn-ākis*; cp. on the other hand Pruss. *deina-algenikamans* dat. 'to day-labourers' from *deina-n* acc. f. 'day' (Lith. nom. *dėnā*).

Feminines in *-ia -ė -i* are treated like the *-jo-* stems. *gīr-parszis* 'little wild pig' from *gīria gīrė* 'wood'. *bažnyt-kėmis* (also *bažnyč-kėmis*, see Rem. 1) 'village with a church' from *bažnyčia* 'church' (borrowed from Slav.). *žėm-skirė* 'landmark, field-boundary', *žem-obūlys* 'earth-apple' from *žėmė* 'earth'. *marť-mergė* 'bridesmaid' from *marťi*, gen. *marczyōs*, 'bride'. An example with *-a-* is *kregžd-a-žolė* 'swallow-wort' from *kregždė* 'swallow'. In Prussian, the feminines which correspond to the Lith. feminines in *-ė* show *-e-* and *-i-*, the equivalents of Lith. *-ė-*, e. g. *ape-witwo* 'river-willow, osier' from *ape*, Lith. *ūpė* 'stream', *wosi-grabis* 'spindle-tree' from *wosee* 'goat' (Lith. **ožė*, cp. masc. *ožys*).

Stems in *-i-*. *tri-rāžis* 'three-pronged'. In words of more than one syllable *-i-* is rare, e. g. *nakti-kovis* 'roving at night'. The forms are usually without *-i-*, as *ak-mirkis* 'twinkling of an eye, moment' from *akī-s* 'eye', *ānt-kiauszis* 'duck's egg' from *ānti-s* 'duck'; cp. Pruss. *perst-lansta-n* 'dust-window, window-shutter' beside O.C.Sl. *prŭstī* f. 'dust'. Here and there we have *-a-*, as *ugn-ūvėtė* 'fireplace' from *ugni-s* 'fire' (cp. *darbā-vėtė*).

Remark 3. These stems may have first followed the analogy of stems in *-o-* (*ugn-a-*) and then dropped the *-a-* (*ak- ant-*), or else the *-i-*, where it does not occur, may have fallen out by regular phonetic change, leaving the forms to be remodelled by the analogy of compounds like *darbā-vėitė*. In any case this group of compounds also (see Rem. 2) must be compared with diminutival formations like *ak-ūžė* 'little eye' *ugn-ūžis* 'little fire' etc.

Remark 4. *aky-mojis* = *akiu mojis* 'moment, twinkling of an eye' *aky-moju* 'instantaneously' (which we can scarcely suppose to have been influenced by forms like *aký-ti aký-la-s* etc.) may perhaps contain the nom. acc. du. used as the dual stem, *akl* for **akí*, see I § 664 p. 523. Cp. the retention of the original *i* in *trý-lika* 'thirteen'. Whether *ie* in Bretken's *akie-mirkenis* 'moment' (Bezzenberger's Beitr. zur Gesch. d. lit. Spr. 270) stands for *ia* is doubtful. — It may be asked in passing how we should regard the *y* in *aby-pusė* 'on both sides', which contains the dual *abl pusi*, where *abl* comes from **abē*. Should we compare (in spite of the different accentuation) the relation of *apy-* to *api- apė*, of *pry-* to *pri- prė*?

Stems in *-u-*. *-u-* was on the whole rather better preserved than *-a-* and *-i-*. *alū-daris* 'brewer' from *alū-s* 'beer'. *virszū-galvis* 'upper part of the head, crown' from *virszū-s* 'upper (part)'. The loss of *-u-* (*-iu-*) and the intrusion of *-a-* in its stead appear to be connected with the partial transition of *u-*stems into the *o-*decl.: *pēt-valgis* 'midday meal' from *pētūs* pl. 'midday', *žmog-žudỹs* 'murderer of men' *žmog-ėdỹs* 'devourer of men' from *žmogù-s* 'man', *gyr-pelnỹs* 'ambitious person, braggart' from *gỹriu-s* 'fame', *pig-ā-kalbis* beside *pig-kalbis* 'proficient in speaking' from *pigù-s* 'easy, cheap'. The form *placz-kojis* beside *plat-kójis* 'broad-foot' (*platù-s* 'broad') is explained by reference to the cases which have *-io-*, as dat. sing. *placziá-m*, cp. *bažnýcz-kėmis* beside *bažnýt-kėmis* p. 79.

Amongst consonantal stems there is scarcely a single example of a genuine type which has not undergone some destructive change in the course of its development. *szūn-obūlei* pl. ('dog's-apples') 'hawthorn' from *szū*, gen. *szuñs*, 'dog', like Gr. *κυν-ώνις*, can scarcely be considered a direct representative of an original type; this is shewn by the forms *szun-musė* 'dog-fly' *szuñ-szūdis* 'stercus caninum', which by the rules of formation in Indo-Germanic should have been **szvin-* (= Skr. *śva-* Idg. **kyn-*). *móter-žolės* pl. 'mother-wort'

(from *mótė*, gen. *moteĩs*, 'woman') shows the strong form of the stem, in contrast to the original type.

Class II. Of this class there is no trace in Baltic.

Class III. *pra-miñtas* 'named': Skr. *prá-mata-s* 'contrived, uttered'. *pér-pintas* 'plaited crosswise': O.C.Sl. *prě-peťũ* 'drawn outwards, outspread'; *pér-jũstas* 'girt over, girt about': Gr. *περί-ζωστος* 'girt about'.

pér-galvė 'that which is laid over or around the head, hood': cp. Gr. *περι-κεφαλον περι-κεφαλαία* 'head-covering'. *apý-vakaris* 'the time towards evening' (*apẽ vākara*). *pa-stalė* 'drawer under the table' (*põ stalũ*).

āt-laikas *āt-lėkas* 'remnant': O.C.Sl. *otũ-lėkũ*. *sán-dora* 'concord', *sá-szlavos* pl. 'sweepings': cp. O.C.Sl. *są*- Skr. *sam-*.

ne-kàs 'scarcely any one, hardly any one'. *ne-vėna-s* 'not only one, not alone', but Pruss. *ne-ains ni-ains* 'no one', cp. Lat. *noenu-m nōn*.

Class IV. *dù-szintu* 'two hundred' *trỹ-szintai* 'three hundred' (for **trys-szintai* according to I § 664, 6 p. 524) beside *dù szintũ* = *trỹ(s) szintaĩ*. *trỹ-lika* 'thirteen' *keturió-lika* 'fourteen' no doubt contain the nom. acc. pl. neut. Accusative forms: *szĩ-mėt* 'this year', *szẽ-nakt* 'this night', *anã-syk* 'that time' for *szĩ mėta*, *szẽ naktĩ*, *anã sykĩ*. We have no doubt instrumentals in *szẽ-pus* 'on this side' *anã-pus* 'on that side' from *pũsė* 'half'. *aby-puseĩ* 'on both sides' is formed from *abl pusĩ* 'both sides' (cp. Rem. 4). Du. nom. masc. *jũ-du* fem. *jẽ-dvi*, dat. instr. masc. *jẽm-dvėm* fem. *jóm-dvėm*, from *jĩs* 'he' and *dũ* 'two', similarly du. *pacziũ-du* from *pàts* 'self', with other forms of the same sort.

In some dialects we find *kas-vākaras* adj. 'every evening' *kas-mėts* adj. 'every year', originally subordinate relative clauses, i. e. 'which ever evening (year) it may be' (the Author, Lit. Volksl. u. Mārch. 320, and for a similar usage in Slavonic see Miklosich, Vergl. Gr. II 376, IV 87). In other dialects the analogy of accusatives of time like *tã (szĩ) vākara* 'in the evening (this evening)' gave rise to *kasvākara*, *kasmėta*, similarly *kasdėna* 'daily' and other forms; and, with loss of the

ending, *kasmēt kasdēn* etc.; and further, derivatives like *kasdēnis kasdēnīnis* 'daily'. Cp. Lat. *quotannīs* § 36 p. 63.

Compounds having a dependent genitive for their first member are rare; e. g. *szuns-ūdēgius* ('dog-tailed person') 'flatterer, fawner' from *szū*, gen. *szuñs*, 'dog'. There are more examples in Lettic, as *femes-mâte* 'earth-goddess' from *feme* = Lith. *žėmė* 'earth'.

Remark 5. How are we to regard *būts-angē* 'house-door' (*būta-s* 'house'), and Lett. *gads-kārta* 'time of year' (*gads* 'year', stem *gada-*) which seems to be a form of the same kind? Was there a stem **butes-*? (No great importance perhaps should be attached to the Prussian form *buttas-taws* beside *buttan-tāws* and *butta-tawas* 'house-father').

Further, what is the origin of the *y* in *karsztýmetis* 'hot time' (*kárszta-s* 'hot', *kařszti-s* m. 'heat'), *brangýmetis* 'dear time, dearth' (*brangù-s* 'dear'), *darbýmetis* 'work-time' (*dárba-s* 'work'), *vasarýmetis* 'summer time' (*vasarà* 'summer')? Should we start from the nom. pl. *karsztì mētai* (cp. *aby-pusei* from *abi pusì*, Rem. 4) or a form **karsztýn-mētai*? For the general use of the ending *-ymetis* cp. Gr. *-ἡσέως -ἡγερής* § 29 Rem. p. 47.

kits kitā 'one another' is now regarded so much as a single word that the first part retains its masculine form even when the subject is feminine. In Bretken (16th century) we still find *moteriszkēs gēdōja prēsš kitā kitā* 'the women sang against each other'.

§ 47. Slavonic. Class I. Many of the following examples are not popular combinations, but a scholar's translations of Greek compounds.

Stems in *-o-*. The stem has *-o-*, whether the second member begins with a consonant or a sonant. O.C.Sl. *bogo-rodica* 'mother of God' from *bogu* 'God', *črino-vlasū* 'black-haired' from *črīnū* 'black', *črīno-okū* 'black-eyed', *bogo-izbranū* 'chosen of God'. *bogo-učenū* 'taught of God'.

Forms with *-je-* from *-jo-* (I § 84 p. 80): *voje-voda* 'leader of a host' from *voji* pl. 'warriors, soldiers', *lūže-prorokū* 'false prophet', from *lūžī* 'lying, false', *gnoje-imenitū* 'ἡσπάρτυμος' (nickname of a Byzantine emperor) from *gnojī* 'dung', *maže-ubijica* 'homicida' from *mažī* 'man'. Through the preponderance of the forms with *-o-*, this sound often took the place of *pr.*

Slav. *-e-* in later Slavonic, e. g. Serv. *konjo-zobica* ('equum nutriens') 'bag of fodder'.

Stems in *-a-* always show the ending of the *o*-stems. *vodo-nosü* 'water-vessel' from *voda* 'water', *raĥo-pĭsaniĭe* (χειρό-γραφον) 'bill of debt, bond' from *raĥa* 'hand'; *raĥo-obyĭĭnŭ* 'accustomed to the hand, tame'. *zemiĭe-mĕriĭe* 'land-measurement, geometry' from *zemlja* 'land', *zmiĭe-noĭĭnŭ* 'snake-footed, with feet of or like snakes' from *zmija* 'snake', *duĥe-gubĭnŭ* 'destroying the soul, annihilating' from *duĥa* 'soul', *zmiĭe-obrazĭnŭ* 'having the form of a snake', *duĥe-ubiĭŭca* 'murderer of souls'. Serv. *zmijo-glav* 'snake-headed' for the older and true form *zmiĭe-*.

Stems in *-i-*. *trĭ-zabŭ* 'trident' from *tri* 'three'. Many examples have *-o-*, following the analogy of *o*-stems: as *gosto-ljubivŭ* 'hospitable' from *gostĭ* 'stranger, guest', *zvěro-vidĭnŭ* 'having the appearance of a wild beast' from *zvěřĭ* 'wild beast', *sŭmrĭto-nosivŭ* 'death-bringing' from *sŭmrĭtĭ* 'death', *zvěro-obrazĭnŭ* 'having the form of a wild beast'. We often find *-e-* (but this is late), e. g. *zvěre-vidĭnŭ* beside *zvěro-vidĭnŭ*, *zvěre-imenitĭnŭ* beside *zvěro-imenitĭnŭ* 'named after an animal', *paĭe-voždĭ* 'guide'.

Remark. It is a question whether in the latter examples *-e-* is the *e* of the stems in *-jo-* (*voje-* etc.), as Osthoff assumes (Verb. in d. Nominalc. 213), or the *e* of forms like *paĭemĭ* for *paĭimĭ* (I § 36 p. 36, Leskien, Handb.² p. 21 ff.). Osthoff's view seems to be the true one.

Stems in *-u-* have *-o-*. *syno-tvorĭeniĭe* 'σύνθεσις, reception into the position of a son' from *synŭ* 'son'. *medo-toĭĭnŭ* 'sweetstreaming' from *medŭ* 'honey'. Compare the transference of *u*-stems to the *o*-declension, which is found in the very earliest authorities; such forms as *synochŭ* instead of *synŭchŭ* (I § 52 p. 44, and Leskien, Handb.² p. 21 ff.), need hardly be taken into account; see the last Remark. As regards *medvĕdĭ* see § 12 p. 26.

krŭv-o-politiĭe 'bloodshed' from the stem *krŭv-* 'blood', gen. sing. *krŭv-e*, Idg. stem **gruŭ-* **grŭ-*, cp. Gr. ἰχθυ-ο-φάγος. Yet the forms with *-o-* may not have sprung up until after some

of the cases of the word had been formed afresh in the *i*-declension, as nom. *krīv-ī*.

Stems in *-n-*. *kamen-o-vidinū* 'having the appearance of a stone' from *kamy* 'stone'. *imen-o-nosinū* 'bearing a name' from *ime* 'name'. The original types of formation seem to have completely disappeared.

Stems in *-r-*. *matere-dosaditelj* and *matere-ubijsca* 'matricide' like *zvěre-vidinū* (see p. 84 above). Beside these we have, without *-o-*, *četvērē-gubū* 'quadruplus' for **četver-gubū*.

Stems in *-s-*. Generally *-o-* appears instead of *-es-*; *čudo-točninū* 'sending forth wonders, spreading them abroad' from *čudo* 'wonder', *oko-izmetinū* 'casting out the eye' (on the other hand Russ. and Serv. have *oče-*, Russ. *oče-vidnyj* 'appearing to the eye') from *oko* 'eye'; compare the transference of forms from the *es*-declension to that of *o*-stems, as instr. sing. *nebonŭ* beside *nebesimŭ*. More rarely we find *-es-o-*, as *čudes-o-točninū* beside *čudo-točninū*, *nebes-o-podražatelīnū* 'imitating heaven', cp. loc. pl. *nebesēchū* instead of *nebesichū*.

Of Class II no examples remain in Slavonic.

Class III. *pro-stritū* 'outstretched': cp. Skr. *prá-stīrṇa-s* 'stretched forth, outspread'. *u-vestū* 'crowned' *u-vesti* 'to crown': cp. Pruss. *au-klipt-s* 'hidden' Skr. *áva-hata-s* 'struck back, driven off; slain'. *iz-ētū* 'taken out' *iz-ēti* 'to take out': Lith. *isz-iṁta-s* *isz-iṁti*.

pri-morije 'the region by the sea' (*pri mori*). *na-glavije* 'turban' (that which is on the head [*na glavě*]). Cp. Miklosich, Denkschr. d. Wiener Ak. XIII 19 f.

sq-logū 'consors tori': cp. Gr. ἄ-λογος, Idg. **som-* **sqn-* 'together, with'. *pa-dūšti* 'step-daughter': Lith. *pó-dukra*.

Class IV. *bratū-sestra* 'brother and sister'; this was inflected like the nom. du. of an *o*-stem, hence *bratūsestroma*; compare the dimin. *bratūsestrīca*. *Jisusū-Christosū* has gen. *Jisusū-Christosa*. *dūva-desetīnū* 'twentieth' (beside *dvo-desetīnū*), derived from *dūva desetī* (two decades) 'twenty'. Many similar examples occur in modern Slavonic dialects; e. g. in Polish *wielka-noc* (great night) 'Easter' has gen. dat. *wielkanocy*.

polu-nošti 'in the middle (loc.) of the night (gen.), at midnight', and similarly *polu-dine* 'at midday'; compare *polu-noštije* 'midnight' *polu-dinije* 'midday', *polu-noštinnū* adj. 'of midnight' *polu-dinnū* adj. 'of midday'. *obonūpolinnū* 'situated on the further bank', derived from *obū onū polū* 'on that side, on the further bank'. *peřī-na-desetinnū* 'fifteenth', derived from *peřī na desete* ('five on ten') 'fifteen'. With -o-, the 'vowel of composition', inserted: *osmo-na-desetū* 'eighteenth', cp. Gr. *καλο-αγία* § 30 p. 51. Compare on this subject Baudouin de Courtenay in Kuhn-Schleicher's Beitr. IV 204 ff.

krūvi-prolitije (beside *kruv-o-prolitije*, see above) 'bloodshed', gen. of *krūvī* 'blood'. *domu-zakonīnikū* 'house-manager', gen. or loc. of *domū* 'house'. *bratu-čēda* (beside *brato-čēda*) 'brother's daughter', dat. (possessive dat.) of *bratū* 'brother', *bogu-mrīzūkū* (beside *bogo-mrīzūkū*) 'hated of God' *bogu-milū* (beside *bogo-milū*) 'dear to God' (proper name), dat. of *bogū* 'God'. *doma-čēdicī* 'domi natus, vernaculus' *doma-živīcī* 'living at a place, inhabitant', *doma* adv. 'at home' from *domū*. As the special meaning given by the case of the first member became obscured, there sprang up formations like Czech. *Bohu-sud* on the analogy of *Bohu-mil*, cp. O.C.Sl. *bogo-sqđtnē* adv. 'dei iudicio'.

The -i- appearing in the cases of the *i*-stems (*krūvi-prolitije*) was connected in popular usage with verbs in -iti and treated as having an imperatival force. Such a form, for instance, as *Misti-drugū* (Czech. *Msti-druh*) was properly 'ultionis socius', *mīsti* being gen. of *mīstī* 'vengeance'; but since *mīsti* was also 2. sing. impv. of *mīstiti* 'to avenge', the word came to be regarded as meaning 'ulciscere socium'. This change of meaning produced a large number of compounds which were either formed on the new type, or altered to suit it, e. g. Serv. *Ljubi-voj* ('love the warrior', *ljubiti* 'to love') instead of **Ljubo-voj*, cp. *Ljubo-brat* 'φιλάδελφος'. See Osthoff, Verbum i. d. Nom. p. 209 ff. Cp. § 30. 41.

NOUN COMPOUNDS CONSIDERED IN RESPECT OF THEIR MEANING.

§ 48. In Stem-Compounds of the proethnic Indo-Germanic type (e. g. Skr. *aśva-hayá-s* Gr. *ἵππό-βοτο-ς*) the nature of the relation which the first member of the compound bore to the second was quite undefined to start with. It was implied solely in the particular meaning which happened to be assigned to any one such combination. The logical relation between the two parts must naturally have assumed a different character in different cases. If the parts of a compound meant 'sun' and 'moon' respectively, the logical connexion between them would not be the same as if they meant 'sun' and 'beam': 'sun *and* moon' in the first case, 'beam *of* the sun' in the second. If words meaning 'man' and 'slaying' were compounded, they would be related in one way ('slaying a man'); words meaning 'spear' and 'slaying', in another ('slaying with the spear'). A number of compounds whose parts had the same logical connexion would form a group, and many such groups arose in the proethnic Indo-Germanic period. Hence even the proethnic compounds of noun-stems may be arranged in a series of Classes according to their meaning. These Classes, we shall find, need no serious extension to include all the compounds of this kind formed at later times in the separate languages.

The compounds whose initial member was a definite inflexional form have a different history. From the first this inflected form gave to the relation between the parts a perfectly defined meaning, e. g. Skr. *divi-jā-* 'born in heaven', *divō-rūc-* 'shining from heaven'. It must be observed, however, that in later times the special meaning attached to the inflexional ending of the initial member was often forgotten. Cp. § 17 p. 32 f.

The native grammarians of India and modern students of language in Europe have devoted much labour to the task of classifying compounds according to their meaning.

Remark. It must be confessed that in these attempts at classification scholars have almost from first to last allowed too much influence to a

desire for logical symmetry, and too little to the true historical method, which abstains from all criticism that is merely *a priori* and that is not directly suggested by and limited to the nature of the facts to be studied. In particular it is often forgotten that in most compounds the mutual relation of the two parts in the mind of the speaker which the scholar has to reproduce is a conception far too indefinite and variable to be confidently assigned, as too often it is, to this one or that of the numerous classes of meaning. Hence there has often been a needless amount of contention as to whether a compound belongs to one class or the other, whether for example Skr. *sakhi-gaṇa-* (*sakhi-* 'friend', *gaṇa-* 'band') is one of the Dependent [Whitney, Skr. Gr. § 1263] or of the Descriptive [ib. § 1279] compounds (whether it is equivalent to 'amicorum caterva' or 'amica caterva'); or whether *πατρο-φονεύς* 'patricide' is to be regarded as genitive or accusative. But as a rule these precise relations of meaning were simply imported into the words by the grammarian — a mistake natural enough where a paraphrase was needed to render the compounds into other languages — whilst the speakers themselves were content with a general impression of the meaning. If the established canons are to be strictly maintained, we must at least allow a large number of intermediate stages, in which the different classes meet.

§ 49. There are two leading principles by which we can distinguish the different kinds of compounds, which go back to the proethnic period and which are of primary importance in any attempt to classify the compounds according to their meanings. First 'coordinating compounds, (called in Sanskrit *dvandva*) are opposed to 'subordinating compounds'; and secondly 'non-epithetised' (nicht mutierte) are opposed to 'epithetised' (mutierte) compounds'. But in neither pair were the contrasted classes ever absolutely distinct; there were always various intermediate stages between one class and the other.

In the first of the two contrasted classes, the coordinating compounds, the two members stand side by side on the same level, nothing more being implied than the addition of two items; these may be regarded as joined together by 'and', whence such compounds have been called 'copulative'. In subordinating compounds, on the other hand, one member is defined more closely by the other; the one contains the principal idea, the other is merely an adjunct subordinated to it.

The subordinating compounds certainly formed by far the larger group in the Indo-Germanic period, and so it has remained in nearly all the subsequent developments of the separate languages (Sanskrit is an exception, see p. 90 f.). The way in which one of the two members was defined by the other was shewn in each case by their meaning or grammatical character, and in all periods it has varied between very wide limits. We may instance the following groups of compounds with parallel meanings in the different languages.

1. Skr. *rāja-r̥ṣi-ṣ* 'a sage who is a king, royal sage', Gr. *ἰατρό-μαρτις* 'a seer who is a physician', Lat. *angui-pēs* 'having a foot which is a serpent, serpent-footed', O.Ir. *rīg-fáith* 'a prophet who is a king, royal prophet' *ban-chu* 'a dog which is a female, bitch', Goth. *þiu-magus* 'a boy who is a servant' (translation of *παῖς*) O.H.G. *gold-ring* 'a ring which is gold, gold ring', Lith. *obel-medis* 'a tree which is a pyrus malus (*obelis*), apple-tree', O.C.Sl. *konje-člověkū* 'a man who is a horse, centaur'.

2. Skr. *mātṛ-ṣvasar-* 'mother's sister', Armen. *skesr-air* 'mother-in-law's husband', Gr. *πατρ-ἀδελφος* 'father's brother', Lat. *mūs-cerda* 'mouse's dung', O.Ir. *rīg-thech* 'king's house', Goth. *þiudan-gardi* f. 'king's house', Lith. *broł-ā-vaikis* 'brother's child' O.C.Sl. *brato-čęda* 'brother's daughter'. Cp. compounds containing genitive forms like Skr. *mātuh-ṣvasar-* 'mother's sister', Armen. *haur-elbair* 'father's brother'.

3. Skr. *adhara-hanú-ṣ* 'lower jawbone', Armen. *kaĵ-air* 'valiant man', Gr. *ἀκρό-πολις* 'upper city, upper part of the city', Lat. *plēni-lūnium* 'full moon' *longi-pēs* 'having a long foot', O.Ir. *find-fólt* 'having white hair', Goth. *hráinja-hairts* 'having a pure heart', O.H.G. *junc-frouwa* 'young lady', Lith. *jū'd-varnis* 'black raven' *rud-kāklis* 'having a red neck' O.C.Sl. *krivo-nosū* 'crook-nosed'.

4. Skr. *saptá-r̥ṣay-as* pl. 'the seven wise men' (name given to the Great Bear) *tri-rātrá-m* 'space of time including three nights', Armen. *hing-am* 'five years, quinquennium', Gr. *τρι-πους* 'three-legged frame' *τέττα-ιππον* 'team of four horses', Lat. *bi-pēs* *tri-noctium*, O.Ir. *tre-choste* 'tripod' Gall. *tri-garanus* 'provided

with three cranes', O.H.G. *zwi-houbit* 'having two heads', Lith. *tri-rãžis* 'having three prongs' O.C.Sl. *trǣ-zabŭ* 'having three teeth'.

5. Skr. *tāmra-dhūmrá-s* 'dark tan-coloured', Gr. ὀχρό-ξανθος 'pale yellow', O.Ir. *dub-glass* 'dark blue', Mid.H.G. *bleich-grüne* 'pale green', Lith. *jũ'd-bėris* 'black-brown' Russ. *světlo-zelenyj* 'light green'.

6. Skr. *vēda-vīd-* 'knowing the Veda, Veda-knower', Gr. βου-πλήξ 'goading oxen, ox-goad', Lat. *jū-dex* 'declaring right, judge'.

In this way a large number of categories may be distinguished; but the boundary line between any two is never clearly marked.

The coordinating compounds have nowhere been largely developed except in Sanskrit, and there only in the post-Vedic period. Probably there was a time in proethnic Indo-Germanic when no compounds of this class existed except those which had a case-form for their initial member, e. g. **duō-dekē* 'twelve' (2 + 10): Skr. *dvā-daśa* etc., see § 16 p. 32; and *dvandva* compounds with a stem for the initial member only arose when compounds containing a case were re-modelled on the analogy of the older subordinating class, which had the simple stem. This process of conversion may often be traced with certainty in historical times, e. g. Skr. *parjanya-vātā* instead of the older form *parjanya-vāta* 'raincloud and wind' (§ 24 p. 41), cp. also Gr. καλο-κῆραθίᾱ, νηλιπο-καιβλεπίλαιος, O.C.Sl. *osmo-nadesetŭ* (§ 30 p. 51), and Skr. *pūrva-pūrvas* for *pūrvas-pūrvas* and the like, § 53. The use of the stem instead of a case cemented the combination more firmly; and such a process would be all the more natural because many compounds of the subordinating class approach very closely to the coordinating compounds in regard to the particular relation subsisting between their parts, and there was never any sharp distinction between the two groups (cp. p. 91).

Whether *dvandva* compounds were formed with the simple stem in proethnic Aryan is doubtful. Even in the Rig-Veda, coordinating compounds containing the simple stem

occur only rarely by the side of those containing a case; e. g. *ajāvāyas* (*aja-avāyas*) pl. 'goats and sheep'. The extension of the class is a special development in Sanskrit, spreading only by slow degrees, until in the classical language we find any number of nouns thus strung together into what was grammatically a single word, as *mukhabāhūrūpādatas* (*mukha-bāhū-uru-pādatas*) 'from countenance, arms, thighs, and feet'. In non-Aryan languages, coordinating compounds containing a stem are, on the whole, comparatively rare. In Greek no clear examples occur until rather late, e. g. *λυρ-ασπίδ-* 'lyres and shields' seen in *τορνευτο-λυρασπίδο-πηγός* 'joining together turned lyres and shields' 1), *νυχθ-ήμερον* 'diem noctemque', *λουτρά ἀνδρό-γυναι* 'baths for men and women alike', *λευκο-μέλας* 'white and black'; in Modern Greek there are many formations of this kind, as *γυναικό-παιδα* 'women and children', *μαχαιρο-πίρωνα* 'knives and forks'. Lat. *reci-procu-s*, originally 'going backwards and forwards' (§ 86 a), *su-ove-taurilia* (the form *su-ovi-taurilia* is perhaps more correct) 'a sacrifice in which a pig, a sheep, and an ox are slain'. In Keltic and Germanic I know of no examples except those whose initial member may conceivably be a case, as Mid.Ir. *brat-gaisced* 'mantle and weapons' *gorm-gel* 'blue and white' O.H.G. *sunu-fatar-ungo* Hild. 4 'people of the son and the father' (*-unga-* is a suffix which denotes 'belonging to' something, cp. § 88) and O.Sax. *gi-sūn-fader* 'son and father', whose initial member may be nom. sing. (cp. O.C.Sl. *bratŭ-sestra*, where it is certainly so). Lith. *vyr-moterinis* 'concerning man and wife, concerning married people', Lett. *mišch-āušas* 'barley and oats'; O.C.Sl. *maže-ženŭ* 'having the nature of man and of woman, ἀνδρόγυνος' (Gregor. Naz.), Russ. *bělo-rumjanyj* 'white and red' (of the face).

We have already remarked that there is no fixed boundary between coordinating and subordinating compounds. The Greek *ἰατρό-μαντις*, which was placed in the latter class on p. 89, may

1) This would be a *dvandva* compound even if the scholiast's explanation were correct: οἱ τορνεύουσι λύρας καὶ ἀσπίδας πηγνύουσι.

be also taken to mean 'one who is physician and seer', and similarly there are two possible explanations of such compounds as *τραγ-έλαφος* 'goat-stag' *γλυκύ-πικρός* 'bitter-sweet', Lat. *dulc-acidus*, and many more in all the Indo-Germanic languages.

§ 50. The distinction between the two classes of compounds which we term 'non-epithetised' and 'epithetised' (other terms widely used are 'primary' and 'secondary', compounds of 'lower' or of 'higher order'; the second class is called by the Sanskrit grammarians *bahuvrīhi*) depends upon a certain change of meaning in the compounds, developed in proethnic Indo-Germanic, and since that time constantly repeated in new-examples. For instance, **dus-menes*- 'evil mind' (*immutatum*) acquired the meaning 'an evil-minded person' (*mutatum*) (nom. sing. Skr. *durmanās* Gr. *δυσμενής*), and in Modern German *dick-kopf* 'thick-head' means 'a thick-headed person' [cp. Eng. *redbreast* etc.] The essential point in this process is the conversion of a substantive into an adjective; the concrete meaning was disregarded, so that the idea remaining in the word was solely that of the quality or qualities which belonged to the concrete person or thing. This development of meaning is one which may often be traced even in uncompounded substantives, and it will often meet us again in the course of our investigation. The substantival origin of these forms is still sometimes shewn in the deficient expression of their adjectival function; e. g. in Greek *ρόδοδάκτυλο*- 'rosy-fingered' was used in spite of its -ο- for the fem. as well as the masc., and *χρῦσο-κόμη*- 'golden-haired' in spite of its -η- for the masc. as well as the feminine. But extended formations were very soon developed to give fuller expression to the adjectival character of the compounds; for instance the adjectival -ιο- had come to be used as a convenient affix in the proethnic period: cp. Skr. *dāśa-mās-īya*- 'happening every ten months' etc., § 63, 2. It is probable, as we saw in § 19 p. 35, that there was even then a difference in accentuation between the *mutata* and the *immutata*.

The student must be on his guard against the idea that every epithetised compound in the Indo-Germanic languages

has passed through this course of developement for itself. By far the greatest number were formed with the derived sense, on the model of older forms.

Both subordinating and coordinating compounds containing substantives are found with the epithetised meaning; e. g. Gr. *πολύ-οινος* 'having much wine' and *ἀνδρό-γυνος* 'intended for men and women' (*λουτρόν*). Examples have been given in the preceding section, and to these a few may be added from the group of subordinating compounds. Skr. *hiraṇya-kēśa-s* 'golden-haired', Armen. *hast-a-bazuk* 'strong-armed', Gr. *λευκ-ώλενος* 'white-armed', Lat. *māgn-animus*, O.Ir. *nocht-chenn* 'bare-headed', Goth. *hráinja-haírts* 'who has a pure heart', Lith. *minksztagalvis* 'who has a weak head' = 'soft-headed' O.C.Sl. *črino-vlasŭ* 'black-haired': cp. the non-epithetised compounds Skr. *adhara-hanú-ś* 'lower jawbone', Gr. *ἀπρό-πολις* 'upper city' etc. p. 89. Skr. *a-putrá-s* 'who has not a son, sonless' Armen. *an-kin* 'who has no wife, widower', Gr. *ἄ-παις* 'childless', Lat. *im-berbis*, Mod.Cymr. *an-niwedd* 'endless, unending' (from Mid.Cymr. *diwedd* 'end' = O.Ir. *dēad*); in Germanic and in Balto-Slavonic there is no group of epithetised compounds with **q-* 'un-', but cp. Mod.H.G. *eine verfolgte unschuld* = 'innocent person', lit. 'persecuted innocence', Lith. *ne-kalbà* 'no-speech' = 'who says nothing'. Parallel to these are the non-epithetised compounds, Skr. *á-kumāra-s* 'no boy (any longer)', Lat. *in-imīcu-s*, O.H.G. *un-chraft* 'weakness', etc.

Finally we must observe that even between *mutata* and *immutata* no sharp line can be drawn. Take for example the Greek *ἄδωρα δῶρα* 'gifts that are no gifts' (Soph. Aj. 665). Here *ἄδωρα* may be regarded equally well as a substantive or an adjective; so also *πόλις νεόπολις* (Aesch. Eumen. 690) and similar instances. In these the feeling of the language may be as undecided as it is e. g. in the Mod.H.G. phrases *es ist not* 'there is need of it, it is needed', *er ist schuld* 'he is the guilty cause, it is his fault' and the like. Speaking generally, no sharp distinction between substantive and adjective can be drawn in the Indo-Germanic languages (§ 138).

REDUPLICATED NOUNS.¹⁾

§ 51. We distinguish three groups:

I. Forms in which the first element of the reduplication is a more or less complete form of the root, e. g. Skr. *gár-gar-as* 'eddy';

II. Forms in which it is a noun-stem, e. g. Skr. *sukha-sukhēna* (instr.) 'very gladly';

III. Forms in which it is a case-form, e. g. Skr. *divé-divē* 'daily, day by day' (loc.).

With the second group should be compared such compounds as Skr. *sukha-svāpa-s* 'pleasant sleep'; with the third, compounds like Skr. *divō-jā-s* 'child of heaven' (§ 10 ff.).

§ 52. Class I. A number of the words belonging to this class may have been either formed directly as nouns, or derived from older reduplicated verbal forms. No certain line of distinction can be drawn; and though we shall here take no account of verbal nouns in the strict sense, i. e. participles etc. (e. g. Gr. *κε-κρᾶγ-ώς*), yet we must include many nouns which were certainly formed in connexion with the verbal system (e. g. Gr. *κε-κρᾶγ-μός*).

As regards forms with 'broken reduplication' see § 6 p. 13.

1. Many reduplicated forms derived from roots beginning in a consonant stand in more or less clear connexion with intensive verbal formations, as Skr. *dár-dar-ti* 'rends asunder, shatters'.

Skr. *gár-gar-as* 'eddy', Gr. *γαρ-γαρ-εών* 'uvula' *γέρον-ος* 'throat, gullet', Lat. *gur-gul-iō gur-g-es*, O.H.G. *quer-chal-a quer-ch-a* O.Icel. *kver-k* 'throat' (for the interchange of *r* and *l* see I § 282 p. 225 f.): cp. the Skr. intensive verbal forms, part. *jár-gur-āṇa-s* and 2 sing. *jal-gul-a-s*. Skr. *bam-bhar-a-s* 'bee', Gr. *πεμ-περ-ηδών* a kind of wasp: **bhem-bh(e)r-* for **bher-bher-*, see I § 282 p. 226. Gr. *τη-θῆ* 'grandmother' *τη-θί-s* 'aunt', Lith. *dė-dė* 'uncle' O.C.Sl. *dě-dŭ* 'grandfather'.

1) The authorities on this subject are cited on p. 11, footnote 2.

Skr. *gad-gad-as* 'stammering', beside *gád-a-ti* 'pronounces'. *cañ-cal-cas* 'moving to and fro' beside 3. sing. *cañ-cal-ya-tē*. Avest. *ra-rem-a-* 'resting, reposing', from $\sqrt{\text{rem-}}$. Skr. *rē-rih-á-s* 'licking' *vē-vij-á-s* 'hastening'.

Gr. *βάβ-βαρ-ος* 'speaking unintelligibly': Lat. *bal-b-u-s*, cp. Skr. *bal-bal-a-karōmi* 'I stammer'. *γογ-γύλ-ος* 'round', beside *γυλό-ς* 'milk-pail, vessel'. *παι-πάλ-η* 'flour-dust', beside *πάλ-η* 'flour-dust, dust', Lat. *pollen*.

Lat. *quer-quer-u-s* 'cold, so as to make one shiver'; compare perhaps Goth. *faúrht-s* 'timid' (Bezzenger in his Beitr. XII 77, and above, I § 444 p. 329). *Mar-mar* (Song of the Arval Brethren): Gr. *μάρ-μαρο-ς* 'gleaming, shining'? (Pauli, Altital. Stud. IV 56 ff.). *derbiōsu-s* 'full of scabs or sores' for **der-d-u-* (I § 170 p. 150): Skr. **dar-dr-u-* *dar-d-ū-* 'eruption on the skin'. *can-cer* (I § 269 p. 217): Gr. *καρ-κ-ίνο-ς* Skr. *kar-kāṣa-s* 'crab'.

O.Ir. *dor-d* 'susurrus' (cp. 3. sing. mid. *derdrethar* 'there is a sound, a cry'): Gr. *τερο-θρο-εῖα* 'empty chatter' *τορ-θρο-ύ-ς* 'murmur'. *graig* 'drove of horses' for **gra-gi-?*: Gr. *γέρ-γερο-α* *πολλά* Hesych., *γάρο-γαρο-α* 'swarm, heap' (*γαρο-γαίρω* 'I swarm'), Lat. *grex* stem *gre-g-*; cp. § 160 Rem. 1.

Mid.H.G. *mur-mer mur-mel* 'murmur, growl, dull sound' (O.H.G. *mur-mur-ōn mur-mul-ōn* 'to murmur'): Skr. *mar-mar-a-s* 'roaring, roar', Lat. *mur-mur*, cp. Gr. *μορμύρω* for **μορ-μυρ-ω* 'I murmur, roar', Lith. *mūr-m-iu* 'I growl'. O.H.G. *muo-ma* 'mother's sister': Lith. *mo-mà* O.C.Sl. *ma-ma* 'mother'.

Russ. *pele-pel-ka pere-pel* (I § 251 Rem. 2 p. 224 f.) Lith. *pė-pal-a* (or *pė-pal-a*) Lat. *pái-pal-a* Pruss. *pen-pal-o* 'quail': cp. Lat. *pul-pul-āre pul-p-āre* 'cry, shriek' (of birds)? O.C.Sl. *gla-gol-ŭ* 'noise, word' for **gol-gol-* (loc. cit.): Skr. *gar-gar-a-s* a musical instrument, Gr. *γαρ-γαρο-ί-ς* *θόρυβος* Hesych. (cod. *γαργαρός*). Lith. *kañ-kat-a-s* 'bell' *kañ-kl-ys* 'guitar' O.C.Sl. *kla-kol-ŭ* 'bell' for **kol-kol-* (loc. cit.): Skr. *kar-kar-i-ś* 'sound'. Serv. *vje-ver-ica* Mod.Slov. *vě-ver-ica* Lith. *vo-ver-ė vai-ver-i-s* Lett. *vā-ver-i-s* Pruss. *we-war-e*: Mod.Pers. *var-var-ah* Mod.Cymr. *gwy-wer* 'squirrel'. Mod.Slov. Mod.Bulg. *pa-prat* Pol. *pa-proć*

Russ. *pa-porot* and Lith. (borrowed?) *pa-párti-s* 'fern', cp. O.H.G. *var-n* 'fern'.

2. In other nouns from roots beginning in a consonant the form of the reduplication must be compared with that seen in verbal forms with Idg. *e*, such as Gr. *δέ-δορκα* *κέ-κλ-ετο*; and there is no doubt that in some cases there is a direct connexion between the verbal and nominal forms.

Skr. *ba-bhr-ú-ṣ* adj. 'brown', (when used as a subst. it means a large kind of ichneumon) Avest. *ba-wr-i-ṣ* 'beaver', O.H.G. *bibar* (cp. *filu* 'much' ground-form **pelu*) Lith. *bėbru-s* O.C.Sl. *bebrū* 'beaver', Idg. **bhe-bhr-u-*; Gall. *Bibrax* and Lat. *fiber* belong to 3 (infr.), so also perhaps Corn. *befer* 'beaver' (which however may very possibly be a word borrowed from A.S.). Skr. *ca-kr-á-m* 'circle, wheel' Avest. *ca-xr-e-m* 'wheel', A.S. *hweo-wol hweól* 'wheel', Idg. **qe-ql-o-*, cp. also Gr. *κύ-κλ-ο-ς* vol. I § 427 p. 314 and the unreduplicated O.C.Sl. *kolo* (stem *koles-*) n. 'wheel'.

Skr. *va-vr-i-ṣ* 'covering' *va-vr-á-s* 'hiding oneself' Avest. *-vaoiri-* 'husk' (for **ua-ur-i-*, I § 160 p. 144), cp. the Skr. perfect stem *va-vr-* from *var-* 'cover over'. Skr. *cá-kr-i-ṣ* 'effecting' *ca-kr-u-ṣ* 'accomplisher', cp. the perfect stem *ca-kr-*. Skr. *da-d-i-ṣ* 'giving' *dá-dh-i-ṣ* 'bestowing', cp. the present and perfect stems *da-d-*, *da-dh-*. With these compare Ved. *sā-sah-i-ṣ* 'victorious', with the perfect stem *sā-sah-*. Skr. *da-dhr̥ṣ-á-s* 'bold, courageous'. Avest. *za-zar-an-* 'raging'.

Gr. *τέ-ταν-ο-ς* 'tension of the limbs', from $\sqrt{\text{ten-}}$. *τέ-τρας* probably 'guineahen', beside *τε-τράζω* 'cackle'. *κε-κρύφ-αλο-ς* and *κε-κρύφ-αλο-ς* 'net-headress, hood', beside *κέ-κρυφ-α*. *βέ-βη-λο-ς* 'accessible, profanus', beside *βέ-βη-κα*. *κε-κράγ-μός-ς* 'cry', beside *κέ-κράγ-α*. *πε-ποιθήσι-ς* 'trust' (late), beside *πέ-ποιθ-α*. *σέ-σφυ-ο-ς* *πανούργος* Hesych. *πέ-πλ-ο-ς* 'outside garment, cloak, covering, the peritonaeum', probably to be compared with *πέλλα* 'skin, leather' *πέλμα* 'sole of the foot or shoe'.

Lat. *me-mor*: cp. Gr. *μέρ-μερ-ο-ς* 'noteworthy, horrible' and Skr. perf. *sa-smāra* (Osthoff, Paul-Br. Beitr. VIII 549 f.).

fe-br-i-s, compare Skr. *bhur-á-ti* 'is unquiet, throbs'. *sēd-ēs* for **se-zd-*, √ *sed-*, cp. I § 314 Rem. p. 253.

O.H.G. *zittar-oh* A.S. *teter* 'pustular eruption', pr. Germ. **te-tr-u-*: Skr. *da-dr-u-* Lith. *de-der-vinė* 'pustular eruption', cp. Lat. *der-b-iōsu-s* etc. formed on the type of 1, p. 95.

Lith. *tē-tervina-s* 'heathcock' O.C.Sl. *te-trěvī* 'pheasant': Gr. *τί-τροῖς* *τέ-τραξ* *τε-τράων* a kind of fowl, cp. also Skr. *tī-ttīri-ś* *tī-ttirá-s* 'partridge'. O.C.Sl. *pe-pelŭ* (beside *po-pelŭ*) 'ashes', cp. Czech. *plá-pol* 'flame'. Lith. *te-tà* O.C.Sl. *te-ta* 'aunt, nurse': Gr. *τέ-τα* 'little father, dad', cp. Skr. *tā-tá-s*, a word used by parents in addressing children and *vice versa*, Lat. *ta-ta*, Lith. *tē-ti-s* 'little father'.

3. In another group of formations from stems beginning in a consonant, the reduplication resembles that of verbal forms with Idg. *i*, such as Gr. *ἱ-στη-μι*, and there is no doubt that sometimes they stand in direct connexion with them. On the whole, however, such forms are rare.

We have no doubt a genuine Indo-Germanic example in Skr. *śi-śir-a-s* 'cold, frost; cold (adj.)' (ground-form **ki-kīl-o-*), with which Bugge (Arkiv for nord. filol. II 355) connects O.Icel. *hēla* f. 'rime' for pr. Germ. **χt-χl-ōn*, and possibly another in Skr. *śi-śu-ś* 'young creature, child' if it is identical with Gr. *κῆ-κν-ς* 'strength' (compared with Skr. *śvā* 'to swell out', Gr. *κνέω*)?

Skr. *ci-kīt-* 'comprehending, aware', cp. pres. *cīkēt-ti*. *śi-śay-á-s* 'driving onwards'. *śi-śnátha-s* 'grasp'. *ci-kur-a-s* 'hair of the head', beside Lat. *cirru-s*?

Gr. *τι-θήνη* *τί-τθη* 'nurse' *τί-τθο-ς* 'mother's breast', beside *θη-λή* 'mother's breast'. *βι-βασις* a kind of dance (late), beside *βι-βάζω*. *ἱ-στό-ς* 'weaver's beam, mast', beside *ἱ-στη-μι*. *ἱ-αχῆ* 'cry' beside *ἱ-άχω* for **Fi-Faxω*. *δι-δαχή* 'instruction' beside *δι-δάσκω* (for the *χ* cp. *δε-δίδαχα*). *γί-γαρ-το-ν* 'grape-stone', beside Lat. *grā-nu-m*.

Remark. In *τι-θύμαλο-ς* 'wolf's-milk' (a plant), *Τι-τύο-ς* a giant (cp. Skr. *tū-tu-má-s* 'strong') and the like, it is possible that *i* has come from *u*, as in *πι-νυ-τό-ς*, see I § 48 p. 41.

Brugmann, Elements. II.

Lat. *qui-squil-iae*, beside Gr. *χο-σκυλ-μάτια* 'shreds of leather'. *ci-cer*, compare no doubt Skr. *kar-kar-a-s* Gr. *κάρ-καρ-ος* (Hesych.) 'hard'. *ci-cōnia*, Praenest. *cōnia*. *ci-cind-ēla*, beside *candeō*.

O.H.G. *fi-faltra* (*fī-faltra*? cp. Mid.H.G. *vī-valter*) A.S. *fi-foldara* O.Icel. *fi-frildi* 'butterfly'. O.H.G. *wi-wint* 'whirlwind', beside a present **wi-μē-mi*? O.H.G. *wiumman* 'to swarm' for **wi-wimman* (Kögel, Literaturbl. f. germ. und rom. Phil. 1887 n. 3).

4. Even nouns derived from roots beginning in a sonant stand side by side with parallel reduplicated forms in the verb.

Skr. *ul-ul-i-ṣ* 'ululabilis' or 'ululatus', Gr. *ὄλ-ολ-υ-ς* 'howler, womanish man' *ὀλ-ολ-υγή* 'shriek, cry of mourning', Lat. *ul-ul-a* 'little screechowl'; cp. also Skr. *ar-ar-ē* used as a sudden call, Gr. Dor. *ἀλ-αλ-ᾶ* 'battle-cry', Mod.Bulg. *ol-el-e*, an exclamation of sorrow. Skr. Ved. *viy-an-aś-i-ṣ* 'piercing', Gr. *ποδ-ην-εκ-ής* 'reaching down to the feet', beside Skr. perf. *an-aś-a* Gr. *ἐν-εγκ-εῖν*; Gr. *-εκ-* in words like *ποδ-εν-εκ-ής* no doubt stands in place of the regular form *-ακ-* = *ἡκ-* through the influence of the syllable *-εγκ-*.

Skr. *ar-ar-i-ṣ* *ar-ar-ā-s* 'leaf of a folding-door', no doubt from *√ar-* 'to arrive at anything, fit oneself in' Gr. *ἀρ-ἀρ-ισκε* 'he fitted on'. *aś-iś-iṣu-ṣ* 'hungry' beside the desiderative *āś-iś-iṣati* 'he wishes to eat'.

Gr. *ἄκ-ακ-ία* 'acacia' *ἄκ-ωκ-ή* 'point, edge', beside *ἄκ-ανο-ς* 'thorn' part. *ἄκ-αχ-μένο-ς* 'pointed'. *ἀλ-άλαγξ* ἡ *πλάνη* Hesych., beside *ἀλ-άομαι* 'roam about'. *ἀγ-αγύρτην* *ἀγύρτην* Hesych., cp. *παν-ήγυρι-ς* 'general assembly'. *ἀγ-ωγ-ός* 'leader' *ἀγ-ωγ-ή* 'guidance', beside aor. *ἀγ-αγ-εῖν*. *ἐδ-ηδ-ών* *φαγέδαινα* Hesych., *ἐδ-ωδ-ή* 'food', beside perf. *ἐδ-ήδ-οκα* part. *ἐδ-ηδ-ώς*. *ὀπ-ωπ-ή* 'sight' *παρθεν-οπ-ίπ-η-ς* 'ogling the maidens', beside perf. *ὀπ-ωπ-α*. *ὀκ-ωχ-ή* 'support' like the Homer. part. *συν-οκ-ωχ-ότε* is a late formation, since the root was *segh-*.

Lat. *up-up-a* 'hoopoe': Gr. *ἀπ-αφ-ός* and *ἐπ-οψ*. The vocalism of these words seems to have been influenced by analogy:

ἀπαφός was no doubt popularly connected with animal names in -αφο-ς (§ 78), ἐπὶ with adjectives in -οψ like αἰθ-οψ.

§ 53. Class II. This class is scantily represented; and although it is probable *a priori* that such forms should have come into use in the same period of the proethnic language in which stem-compounds like Skr. *dvi-pád-* Gr. *δί-ποδ-* had arisen (§ 10. 11. p. 22 ff.), yet all extant examples seem to have come from compounds consisting of repeated case-forms (Class III), which were afterwards re-modelled. This latter would be the same process as we assumed for coordinating stem-compounds such as Skr. *parjánya-vāta* (§ 49 p. 90), which these reduplicated forms approach very closely in usage as well as in form.

Skr. *uttarōttara-s* for **utara-ūtara-s* 'always increasing' *uttarōttara-m* adv. 'ever higher and higher' *sukha-sukhēna* instr. 'very gladly' (Pāṇini). *pūrva-pūrva-s* 'he who from time to time is first, precedes', superl. *pūrvapūrvatama-s*, instead of which in the Veda we have *pūrva-s-pūrva-s*. *ēkaika-s* 'one at a time' for **aika-aika-s*, comp. *ēkaikatara-s*, instead of which in Vedic we have *ēka-ēka-s* = **ēkō-ēka-s*, pr. Ar. **aika-s-aika-s* (I § 556 p. 411 f., § 647 p. 491).

Armen. *mec-a-mec* 'very great' *çar-a-çar* 'very bad', with the same -a- as e. g. *dr-a-kiç* § 28 p. 45, which would not prevent our assuming that the first part was originally a case-form; see p. 46, under Class IV.

Gr. (late) *αὐτ-αυτο-ς* with the meaning of *αὐτότατος* and of Lat. *ipsimus ipsissimus*, cp. O.H.G. *selb-selbo* § 54.

A Keltic form which should no doubt be mentioned here is O.Ir. *al-aile* 'alius', from which *ar-aile* arose bydis similation; also Cymr. *ar-all* (Zeuss² 359. 402); further the form *alaaili* with *indala n-ai* in Zeuss, p. 360.

§ 54. Class III. It may be assumed that this type dates from the proethnic period of Indo-Germanic. It is however difficult to say how far the words of this class in the separate Indo-Germanic languages were merely analogical formations modelled upon older forms already existing, and how far they

arose from an actual repetition in which the repeated word was still independent (e. g. *poor poor child*). In all languages and at all periods such doubled forms might very naturally arise. Moreover it must be once more observed that the boundary line between a phrase consisting of a word used twice in succession (as Lat. *mē mē*, Vergil Aen. IX 427) and a new single word (*mēmē*, *tētē*, *sēsē*) cannot be regarded as constant.

Skr. *tvā-tvam* 'thou', a strengthening of *tvām*, Lat. *mē-mē* *tē-tē* *sē-sē*, Mid.Cymr. *mi-vi* for **mi-mi*, a strengthening of *mi* 'I', *ti-di* for **ti-ti*, a strengthening of *ti* 'thou', *ni-ni* a strengthening of *ni* 'we'. Skr. *yād-yad* 'whatsoever', *yāthā-yathā* 'howsoever', like Lat. *quid-quid quā-quā quantus-quantus*. Cp. also Skr. *prā-pra* and Gr. *πρό-προς* (Hom. *πρόπρος-κλίνδομαι*) 'on and on, ever forwards'!).

In Sanskrit we frequently meet with doubled forms like *āhar-ahar* 'day by day', *padē-padē* 'step by step, at every step', *dāmē-damē* 'in every house', *priyā-s-priya-s* 'very dear'.

Gr. *πάμ-παν* 'entirely': cp. Skr. *śāśvacchaśvat* 'on and on, ever anew' for **śāśvat-śāśvat* (I § 352 p. 274); *śā-śvant-* = Gr. *ᾗ-πανν-* see I 166 p. 147, § 384 p. 289.

In Latin we find only the pronominal forms; such as *mē-mē*, *quis-quis* and the adv. *jam-jam*. *ips-ipsus* (for **ips(e) ipse*) is uncertain (Wölfflin, Gemin. p. 472). In later times were developed such forms as Fr. *bon-bon* 'sweetmeat' *jou-jou* 'toy'; Ital. *tututto* 'entirely' stands for **tuto-tuto* (*tutto tutto*) through syllabic dissimilation (I § 643 p. 481 ff.).

Mod.Ir. *mōr-mhōr* 'great, chief, principal'. Mod.Cymr. *uwyr-uwyr* 'more and more' *gwell-well* 'better and better'.

O.H.G. *selb-selbo* 'idem ipse'. Mod.H.G. dial. *áll-all* 'complete, at an end' *wé-wē* (Rhine-Fr., i. e. *weh-weh*) n. 'small wound'.

1) The comparison of Skr. *sá-sam* 'together' with Mod.Bulg. *sū-s* Russ. *so-s* 'with' is certainly not warranted. I regard the latter as a contaminated formation, occasioned by the phonetic changes of pr. Slav. *sū*, which in certain positions became *s*. Similarly we have Mod.Bulg. *vū-v* 'in'. See the Author, Morph. Unters. III 71.

Cp. also O.H.G. *sō-so*, a strengthening of *sō* 'so' (possibly instr. of **suō-*).

Lith. *jī-jī jō-jō* from *jī* 'eum' *jō* 'eius', and the like.

NOUNS CONTAINING FORMATIVE SUFFIXES.¹

GENERAL REMARKS.

§ 55. We have already remarked (I p. 16 ff., II p. 3 ff.) that no sharp line of distinction can be drawn between what is

1) Besides Bopp's *Vergleich. Gramm. III*, Schleicher's *Compendium*, and the grammars of single languages by Whitney (*Skr. Gram.*) Spiegel (*O.Bactr. Gram.* and *O.Pers. cuneiform Inscr.*), Justi (*Hdb. der Zendspr.*) Leo Meyer (*Vergl. Gramm. der gr. und lat. Spr. II*), Kühner (*Ausf. Gramm. d. gr. Spr. I* und *Ausf. Gramm. d. lat. Spr. I*), Pezzi (*La lingua greca antica*), Zeuss (*Gram. Celt.*), Grimm (*D. Gram. II. III*), Schleicher (*Lit. Gram.*), Kurschat (*Gram. d. lit. Spr.*), and Miklosich (*Vergl. Gramm. II*), the reader is here referred to the following works:

G. Meyer, *Zur Geschichte der indogerm. Stammbildung und Declination*, Leipz. 1875. K. Brugmann, *Zur Geschichte der Nominalsuffixe -as-, -jas- und -vas-*, Kuhn's *Zeitschr. XXIV* 1 ff. F. Wehrich, *De gradibus comparationis linguarum Sanscritae Graecae Latinae Gothicae*, Giss. 1869. H. Collitz, *Die Flexion der Nomina mit dreifacher Stammabstufung im Altind. und im Griech.*, Bezzenberger's *Beitr. X* 1 ff. G. Meyer, *Beitr. zur Stammbildungslehre des Griech. und Lat.*, Curtius' *Stud. V*. H. Ebel, *Starke und schwache Formen griechischer und lateinischer Nomina*, Kuhn's *Ztschr. I* 289 ff. E. Förstemann, *De comparativis et superlativis l. Graecae et Latinae*, Nordh. 1844. Th. J. Gonnet, *Degrés de signification en grec et en latin d'après les principes de la grammaire comparée*, Paris 1876. L. Schwabe, *De deminutivis Graecis et Latinis*, Giss. 1859. A. Leskien, *Die Declination im Slavisch-Litauischen und Germanischen*, Leipz. 1876. — B. Lindner, *Altind. Nominalbildung*, Jena 1878. Chr. Bartholomae, *Zur arischen Flexion der Stämme auf -r, -n, -m, -j, -v*, *Arische Forschungen I* 25 ff. — G. Curtius, *De nominum Graecorum formatione linguarum cognatarum ratione habita*, Berol. 1842. Chr. A. Lobeck, *Paralipomena grammaticae Graecae*, 2. vols. Lips. 1837, *Pathologiae sermonis Graeci prolegomena*, Lips. 1843. F. Stolz, *Beiträge zur Declination der griech. Nomina*, Innsbr. 1880. Kretschmar, *Bildung der Comparationsformen der griech. Sprache*, Bromberg 1842. K. W. Göttling, *De gradibus comparationis Gr. linguae*, Jena 1852. J. La Roche, *Die Comparison in der griech. Sprache*, Linz 1884. Janson, *De Graeci sermonis nominum deminatione et amplificatione*, Leipzig 1869. — H. Düntzer, *Die Lehre von der latein. Wortbildung und Composition*, Köln 1836. C. Paucker, *Materialien zur latein. Wörterbildungsgeschichte* (adjectives in *-orius, -bilis, -osus, -icius, -ivus*) in 'Vor-

called the root-portion of a word and the formative suffixes. Some of the elements which are treated here as formative suffixes may have originally been the last sound or sounds of a root, that is, of a word which does not owe its existence to composition; and this may be true of the whole group of sounds of which the suffix consists, or it may be only its initial part which belonged to the root. I must exclude all conjecture as to which of the particular Indo-Germanic suffixes had this origin.

In the following pages only those suffixes are discussed which had already become suffixes in the strict sense at the time when the separate Indo-Germanic languages began to be developed.

§ 56. Many formative suffixes whose meaning is simple can be resolved into distinct elements; e. g. *-tro-* into *-tr-* + *-o-*, cp. Skr. *ari-tra-* m. n. 'oar' beside *ari-tar-* *ari-tr-* m. 'oarsman' (§ 62), *-isto-* into *-is-* + *-to-*, cp. Skr. *nāv-iṣṭha-* 'novissimus' beside *nāv-yas-* 'novior' (§ 81).

Generally speaking we find that compound suffixes of this sort in the later periods of the history of language are due to either one or other of three causes.

arbeiten zur latein. Sprachgeschichte', Berlin 1884. G. Müller, De linguae Lat. deminutivis, Lipsa. 1865. Kessler, Die lat. Deminutiva, Hildburgh. 1869. W. Corssen, Über die Steigerungs- und Vergleichungsendungen im Lateinischen und in den italischen Dialekten, Kuhn's Ztschr. III 241 ff. — Wh. Stokes, Bemerkungen über die irischen Deklinationen, Kuhn-Schleicher's Beitr. I 333 ff. 448 ff. Id., Celtic Declension, Transactions of the Philological Society for 1885, and in Bezzenberger's Beitr. XI 64 ff. — Th. Jacobi, Untersuchungen über die Bildung der Nomina in den german. Sprachen, Breslau 1847. F. Kluge, Nominale Stammbildungslehre der altgerman. Dialekte, Halle 1886. G. Burghauser, German. Nominalflexion, Vienna 1888. K. von Bahder, Die Verbalabstracta in den german. Sprachen, Halle 1880. L. Sütterlin, Geschichte der nomina agentis im German., Strassb. 1887. H. Falk, Die Nomina agentis der altnordischen Sprache, Paul-Braune's Beitr. XIV 1 ff. — A. Leskien, Spuren der stammabstufenden Declination im Slavischen und Litauischen, Archiv f. slav. Philol. III 108 ff. C. Pauli, Preussische Formlehre, Kuhn-Schleicher's Beitr. VII 155 ff.

Works which treat of a single suffix will be cited below in the sections devoted to the separate suffixes.

See also the lists of authorities on the history of case-formation.

First, a word or a group of words may have been transferred from one declension to another. The formative suffix is then amplified at the extremity nearest the ending of the word. This enlargement of the stem was usually brought about by the coincidence of two declensions in one or more forms; these similarities gave rise to new analogical formations. Thus e. g. the origin of the Avestic participial suffix *-ant-a-* (nom. sing. *barantō*, gen. *barantahe*) was that the accusative termination *-em* (*barant-em*: cp. Gr. *φέρων-α*) was placed on a level with that of *aspe-m* (stem *aspa-*) and similar forms; the origin of the Gothic suffix for names of kindred, *-tr-u-* (nom. pl. *brōþrjus*), was that the dative termination *-trum* (*brōþru-m*: cp. Skr. instr. *bhrātṛ-bhiṣ*) was placed on a level with that of *sunu-m* (stem *sunu-*). In this way nouns which at first had no formative suffix often came to possess one; as e. g. Goth. *fōt-u-* was due to such case-forms as the acc. sing. *fōt-u* = **pōd-η* (see § 159).

Secondly: a suffix sometimes coalesces so completely with a part of some word to which it is added that the point of junction can no longer be perceived, and accordingly when it is used afterwards, the suffix appears in new words with part of this preceding word attached, as though it were a single element in the formation. Thus in High German the suffix *-(i)nārja-* (e. g. O.H.G. *sculd-ināri* 'debtor'), which is found parallel to *-ārja-* (e. g. O.H.G. *mād-ari* Mid.H.G. *mādære* 'mower, reaper') and has the same meaning, came from words like *gartin-āri* 'gardener' (*garto* gen. *gartin* 'garden') *weidin-āri* 'hunter' (*weidinōn* 'to hunt'), and in Greek the feminine formative suffix *-αῖνα* in *λύκ-αῖνα* *κάπρ-αῖνα* and so forth, came from words like *γείταῖνα* i. e. **γείταν-χα* (from *γείτων*), *λέαῖνα* i. e. **λεφαν-χα* (from *λέων*); see § 110.

Thirdly: two elements used in forming derivatives, which are nearly allied in meaning, are combined into one ('contaminated'). An accumulation of suffixes like this often arises simply from the attempt to give fuller or more distinct expression to the characteristic meaning (such as that of comparison, or a diminutival

sense and so forth). Thus we have comparatives and superlatives like Skr. *jyēṣṭha-tama-s* from *jyēṣṭha-s*, Gr. ἀμεινότερος ἐλαχιστότατος, compared with ἀμεινών ἐλάχιστος, Lat. *super-ior extrem-issimus* from *superu-s extrēmu-s*, O.H.G. *hinter-ōro* from *hintero*, Goth. *hindum-ists* from **hinduma*, the H.G. diminutive-suffix *-l-īna-* in *kitz-lein kind-lein* and the like (O.H.G. *chizz-īla* and *chizz-in*), the (rare) Skr. abstract-suffix *-tvā-tā* as in *puruṣa-tvā-tā* 'mortality, the manner of men' (parallel forms are *puruṣa-tva-* and *puruṣā-tā*), the Lat. *-n-eo-* in adjectives of material, such as *aēneu-s pōpulneu-s* (beside these we have *aēnus pōpulnus* and *aereu-s pōpuleu-s*) with other examples.

It may be assumed without hesitation that the second and third processes gave rise to compound suffixes even in the Indo-Germanic period. In the second class should be placed e. g. *-nī-* beside *-ī-* in **pot-nī-* 'lady' (Skr. *pātnī* Gr. πότνια), which came from such forms as **tekṣn-ī-* (Skr. *takṣṇī-* Gr. τέκταινα), the fem. of **tekṣon-* 'carpenter' (Skr. *tākṣan-* Gr. τέκτων); see § 110. To the third class belong the superlative-suffix *-t-ṇmo-* (§ 73), the abstract-suffix *-tā-ti-* (§ 102), and others of the same sort.

§ 57. The original meaning of a suffix used in forming nouns can only be decided in instances where it became a suffix in the course of the development of the separate languages e. g. in the case of Mod.H.G. *-lich*, Fr. *-ment*. In the case of the proethnic suffixes, their etymological origin, and therefore their original meaning is altogether obscure. In order to keep within safe limits, we shall confine ourselves to determining where and how these suffixes were employed at the period when the parent language split up into its different branches; beyond this we cannot go with any hope of certainty.

If a suffix becomes fertile (see § 5), the direction in which its meaning develops is often decided not by the idea which it properly and originally contained, but by the meaning of the complete word or group of words on the analogy of which the new words are formed. Special stress must be laid

on this point because it is seldom sufficiently recognised in attempts to establish the original meaning of the proethnic suffixes, and because it helps to show the great difficulty of such an undertaking.

In Latin, for example, *juven-ta* 'time of youth' (Goth. *junda*, common ground-form **juwŋ-tā*) suggested *senec-ta* 'time of old age', and *septentriōn-alis* 'northern' gave rise to *merīdiōnalis* 'southern'; in A.S. *æf-en* 'evening' was formed in imitation of *morg-en*, while on the other hand in Mod.H.G. we find a dialectic form *morg-end* like *abend*; in O.H.G. *hieſ-altra* 'hip-tree, wild dog-rose' (from *hiufo*), *mazz-altra* 'maple tree' were formed in imitation of *affal-tra aphol-tra* 'apple-tree'; and in Greek *κάπρο-αινα* (fem. of *κάπρος* 'boar'), *λύκ-αινα* (fem. of *λύκος* 'wolf') in imitation of *λέαινα* 'lioness' (for **λεFav-ια*). Here then we have examples of suffixes denoting time of life (Lat. *-tā-*), the points of the compass (Lat. *-iōnāli-*), time of day (A.S. *-en*) and so forth in course of developement. The specialising process has gone further in the case of e. g. *-uo-* (§ 64) in Latin and Germanic as a suffix for forming names of colours, Lat. *helvo-s*, *gilvo-s*, *fulvo-s*, *furvo-s*, *flavo-s* (?), O.H.G. *gelo* 'yellow', *salō* 'black, dirty', *falo* 'fallow, pale', A.S. *baso* 'purple', O.Icel. *hōss* 'gray', O.H.G. *grāo* 'gray' and others (Kluge, Nom. Stammab. 81), which perhaps arose simply from the two forms **ghel-uo-* (Lat. *helvo-s* O.H.G. *gelo*) and **pol-uo-* O.H.G. *falo* O.C.Sl. *plavŭ*). Cp. further the Greek *-αγο-* used as a suffix for names of animals, § 78. In all these instances the special meaning of the suffix is imported into it, and not a natural outgrowth of its original meaning; in the same way it is certainly due to a secondary analogical developement that *-en-* so often recurs in words denoting parts of the body which can be traced back to the parent language, as in the words for head (Skr. *śīrṣ-ān-*, Gr. *ἀντί-κεφαλος* 'two headed', O.Icel. *hjarse*), for eye (Skr. *akṣ-ān-* Goth. *āug-an-*, cp. I § 444 Rem. 3 p. 331), for ear (Goth. *āus-an-*, Gr. *οὐατ-* for **οὐσ-ατ-* **ous-ŋ-t-* and so forth; see § 114.

In the same way many functions of the proethnic suffixes

are no doubt derived (even where it cannot be distinctly proved) from analogical extensions of their use, with which the meaning originally inherent in the suffix had nothing whatever to do.

Remark. Thus I think it probable that the use of the suffix *-ā-* to denote female sex (e. g. Idg. **ekyā-* 'mare': Skr. *dśrā-* Lat. *equa* Lith. *asvā*) did not spring from the original meaning of the suffix, but that some one or some few words in *ā*, perhaps **gnā-* **gṇā-* **genā* 'woman' (Skr. *gnā-* etc., see I § 428 p. 315 f. § 437 p. 325) and **māmā* 'mother' (Lat. *mamma* O.H.G. *muoma* Lith. *momā* etc.) — in which the feminine gender was sufficiently implied by the root-part of the word, just as much as in **māter-* 'mother' (Skr. *mātā* etc.) — gave the suffix its special function, the expression of female sex; and that these forms were then followed by new formations like **ekyā-* beside **ekyo-*. Many things whose names contain an *ā*-suffix assumed in the popular consciousness the shape of female beings though they have nothing to do with animal sex, e. g. Gr. *σελήνη* 'moon'. In these words we shall generally find that the gender to begin with was purely 'grammatical', and that the *ā*-suffix by which the word was associated with words like **ekyā*, was the real cause of the fancy which represented the imaginary personality as a woman and not as a man: conversely, for example, the Greeks imagined *ἄνρο*; as a male being, solely because of connexion of the word in form with male names in *-o-*, such as *θεός*. The notion that primitive man was endowed with so marvellous a wealth of fancy as to regard the great majority of things devoid of life and things immaterial as persons, nay more as persons belonging to one of two distinct sexes, and that the whole system of gender in nouns sprang from this source, is a one which by this time should surely have been abandoned. Cp. the Author, 'Das Nominalgeschlecht in den indogerman. Sprachen', *Techmer's Internation. Ztschr. f. allg. Sprachwiss.* IV. p. 100 ff.

§ 58. Following the example of the Sanskrit grammarians, scholars divide the suffixes used in noun-formation into Primary and Secondary. The former are employed in deriving words from roots or verbal stems, the latter in derivatives formed from noun-stems. Thus e. g. *-tor-* is a primary suffix in nom. pl. Skr. *dā-tār-as* Gr. *δώ-τορ-ες* Lat. *dā-tōr-ēs* 'givers', Skr. *jani-tār-as* Gr. *γενέ-τορ-ες* Lat. *geni-tōr-ēs* 'begetters', Skr. *bōdhayi-tār-as* 'awakers' Gr. *ηγγί-τορ-ες* 'leaders' Lat. *arā-tōr-ēs* 'ploughers', but *-ī-* is a secondary suffix in Skr. *vṛk-ī* Mid.H.G. *wülpe* 'she-wolf' (beside Skr. *vṛka-s* Mid.H.G. *wolf* 'wolf') and in Skr. *vidūṣ-ī* Gr. *ιδούσα* f. 'knowing' (beside the masc. Skr. *vidvān* Gr. *ειδώς* perf.

part. from $\sqrt{\text{ueid-}}$ 'see, know'). Occasionally secondary suffixes are added even to inflected case-forms, e. g. *-tero-* in Skr. *uccāis-tara-* and so forth; see § 13 p. 29 above.

In an historical account of the developement of the Indo-Germanic languages, this difference furnishes us with no useful basis of classification. In the first place, it is to say the least very questionable whether every suffix was originally restricted to one of these two functions. In any case the distinction hardly applies at all, even in the earliest times, to many of the most widely used suffixes, e. g. *-io-* *-iio-*; cp. Skr. *yaj-ya-s* 'venerandus' Gr. *ἅγιος* 'holy', and Skr. *pitṛ-īya-s* Gr. *πάτερ-ιος* Lat. *patr-īu-s* 'fatherly, father's'. Again, we often find that suffixes which were at first restricted to the primary or the secondary use change their function in the course of their history (for other instances besides those which will be discussed below see Whitney, Skr. Gramm. § 1139 and Osthoff, Verb. in der Nominalcomposition p. 116 ff.); and this change sometimes seems to have taken place even before the separation of the languages. One example of this is *-ies-* *-iies-* *-is-*, the suffix of the comparative (§ 135), which, originally primary, seems to have become secondary even in protoethnic Indo-Germanic, the comparatives formed by its means being regarded as derived from the corresponding 'positive' forms (cp. Skr. *svād-īyān* Gr. *ἡδ-ίων* beside *svād-ū-ṣ* *ἡδ-ύ-ς*). In later formations however found only in the separate languages, such as *brāhm-īyān* from *brah-mān-*, Lat. *amic-ior* from *amicus*, *-ies-* is undoubtedly a secondary suffix.

1. Suffixes in -o and -ā.

§ 59. The *o*-suffixes uniformly show the ablaut *o*: *e* (*e*-series, I § 311—314)¹⁾. *o* e. g. in the nom. acc. sing., *-o-s*,

1) As we are accustomed to cite the suffixes whose vocalism assumes the various forms of the *e*-series in their *e*-form (*-es-* *-ter-* etc.), we ought consistently to speak of the suffixes *-e-* *-ie-* *-ye-* instead of *-o-* *-io-* *-yo-* and so forth; but as this point is in itself of little importance, I am unwilling to depart from the usual nomenclature. It will be enough to have drawn attention to the inconsistency.

-o-m. *e* in the voc. sing. *-e*, gen. *-e-sjō*, instr. *-ē*, loc. *-e-ī*; the last three cases also have *o*: *-o-sjō*, *-ō*, *-o-ī*. Parallel to these must further be assumed an 'unaccented weak-grade form', where the suffix disappears altogether, if we suppose that a case-suffix *-ad* is contained in the pr. Balt-Slav. gen. (abl.) **vilqad* 'of a wolf' (Lith. *vilko* O.C.Sl. *vlūka*), and a case-suffix *-a* in the nom. acc. pl. neut. **jugā* (Ved. *yugā*) (see I § 113 Rem. p. 107, p. 108 footnote), if secondary formations like **eky-ijō* 'equinus' from **ekyo-* 'equus' lost the final of the stem by some regular phonetic change (see § 63 Rem. 3), and the *-i-* of the Lat. *Cornēl-i-s* Lith. *mēd-i-s* etc. was the weak-grade form of *-ije-ijō-* (see the beginning of § 63). It is hardly possible from the data at our command to trace the connexion between these phases of vowel gradation and the variation of the accent. But there is nothing to prevent our assuming that *e* stood originally in the syllable which bore the principal accent, and *o* in the syllable which followed it, whilst the case-suffixes *-ad* and *-ā* themselves took the principal accent (cp. I § 311 p. 248 f.). These phonetic relations were afterwards obscured by many different kinds of analogical development.

The *ā*-suffixes show the ablaut *ā:a* (*a*-series, I § 318): *ā* e. g. in the nom. acc. sing., *-ā*, *-ā-m*; *a* in the voc. sing. *-a*, nom. acc. du. *-a-ī*, cp. also instr. sing. Skr. *-aya* O.C.Sl. *-oja*. By the side of these the 'unaccented weak-grade form' perhaps occurs in such words as Gr. *τῆμ-ιος* from *τῆμῃ* pr. Gr. and Dor. *τῆ-μᾶ* (see § 63 Rem. 3). Here also the recorded accentuation shows no variation from which we can reconstruct the original connexion between Ablaut and Accent.

In proethnic Indo-Germanic the *o*-stems were all masculine or neuter, the *ā*-stems all feminine. And the process of differentiation (technically called *Motion*) of Masculine stems to express the variation of gender in substantives and adjectives had come into regular use for *o*-stems in the same period; e. g. **ekyo-s* 'horse' fem. **ekya* 'mare' (Skr. *āśva-s āśvā* Lat. *equo-s equa*), masc. **rudhro-s* fem. **rudhrā* neut. **rudhro-m* 'red' (Skr.

rudhirá-s -irā -irā-m Gr. ῥυθρό-ς -ρά -ρό-ν, Lat. *ruber rubra rubru-m* O.C.Sl. *rŭdrŭ rŭdra rŭdro*¹⁾).

But the original differences in gender did not always remain unchanged in the separate languages. A number of *o*-stems became feminine in Greek and Italic, that is, they were constructed with feminine forms in attributive or predicative combinations, as Gr. ἡ φηγός, ῥοδόσπελος ἡώς, Lat. *haec fagus*, a change of usage which was introduced in different ways (see A. R. Lange, *De Substantivis femininis Graecis secundae declinationis*, Lips. 1885). On the other hand, in the classical languages and in Slavonic² *ā*-stems became masculine, words of abstract meaning formed with *ā* being used to denote male persons; as Gr. νεανία- 'young man' orig. 'youth', ἑτη- 'kinsman' orig. 'kinship', Lat. *agri-cola* 'husbandman' orig. 'husbandry', O.C.Sl. *junota* 'young man' orig. 'youth'. In Lithuanian, neuter substantival stems in -o assumed in the nom. and acc. the masc. form, e. g. nom. sing. *ár-kla-s* 'plough' beside Gr. ἄρο-τρο-ν, and so forth.

The *o*- and *ā*-stems form by far the largest of the Indo-Germanic declensions. Nowhere have these classes suffered any serious loss except in Armenian and in Germanic. In Armenian it would seem that the *ā*-declension wholly died out, and in Germanic many *o*- and *ā*-stems passed into the *n*-declension (§ 112 ff.).

§ 60. The Suffix -o- -ā-³⁾.

From the earliest period, the suffixes -o- and -ā- were used for many different purposes. Besides their use to denote physical sex we may notice in particular the following functions:

1. -o- is found in certain abstract root-nouns (*nomina actionis*)

1) See § 57 Rem. p. 106, and the Author's Essay on Gender cited there.

2) Ed. Wolter, *Razyskanija po voprosu o grammatičeskom rodje*, Petersburg 1882 (see the notice of it by H. Haupt, Berlin. philolog. Wochenschr. 1885 p. 312 ff.)

3) H. Zimmer, *Die Nominalsuffixe a und ā in den german. Sprachen*, Strassburg 1876. F. Miklosich, *Das Suffix ā im Altslovenischen*, Kuhn-Schleicher's Beitr. I 222 ff. 273 ff.

(the root-syllable usually bears the accent), e. g. **gón-o-* 'a be-
getting, coming into being' Skr. *jána-m* 'birth, origin' Gr. *γόνος*
'birth', also concrete 'offspring', Gr. *χρόμ-ος* 'noise, murmur,
neighing' O.C.Sl. *grom-ŭ* 'thunder', Goth. *ga-fah-s* m. 'capture'
(ground-form **pánko-s*) *dragk* n. 'drink'. 2. -o- is found in certain
nomina agentis (the accent falls usually on the suffix), e. g.
**tor-ó-* 'he who penetrates' Skr. *tārā-s* Gr. *τορός*, Lat. *procu-s*
'suitor' (beside *precāri*), Goth. *þiufs*, gen. *þiubis*, 'thief' (ground-
form **teupó-s*). 3. -ā- is found in certain abstract root-nouns
(*nomina actionis*), e. g. Gr. *φύγ-η* Lat. *fug-a* 'flight', Gr. *βλήχ-η*
'bleating, cry' O.H.G. *chlag-a* 'lament', Skr. *bhid-ā* 'separation',
Goth. *bid-a* 'request, prayer'.

Differentiation of Adjectives (*Motion*): e. g. masc. **néu-o-s*
neut. **néu-o-m* fem. **néu-ā*: Skr. *náva-s náva-m návā*, Gr.
νέο-ς νέο-ν νέā, Lat. *novo-s novo-m nova*, O.C.Sl. *novŭ novo*
nova.

In most of the Indo-Germanic languages we find more or
less frequently the transference of stems that do not end in
o or ā, e. g. stems ending in explosives, into the o- or ā-
declension, without any modification of meaning. The change
in any particular case may be due to any one of a large number
of causes; indeed, to any association either of sound or of sense.
Analogy of form, for example, produced in Sanskrit a nom.
dānta-s (cp. p. 111) beside acc. *dānt-am* (stem *dānt-* 'tooth'),
and in Greek *τὴν κάρην* (Callim.) beside nom. acc. neut. *κάρᾱ*
'head' (for **καρᾱσ-α*, a neuter subst. like *ἄλειφ-α*). On the other
hand, the change was due to an association of meaning when in
Latin *aurōr-a* ('dawn') and *Flōr-a* were substituted for **aurōs*
-ōris (§ 133) and *flōs* -ōris (§ 134); so in O.H.G. pl. *tohter-ā*
'daughters' for the older form *tohter*, in Lith. *dukr-ā* 'daughter'
for *duktĕ* -eŗs, and in Pruss. *swestr-o* O.C.Sl. *sestr-a* 'sister' be-
side Lith. *sesŭ* -eŗs (§ 122). Often both principles may have been
at work together, e. g. when in Prākṛit *māda* 'mother' and
duhida 'daughter' (Idg. -tē(r)) passed over to the ā-declension
(cp. § 122 Rem. 1). The attraction to the o- or to the ā-
declension often affects only single cases, e. g. Gr. dial. dat. pl.

πόδ-οις (like λύκ-οις) for ποσί, acc. pl. πάντ-ανς (like πάνσα-νς) for πάντ-ας, and there is perhaps an example of such a transference into the *o*-declension even in the proethnic language, where the genitive ending -*ōm*, which comes from -*o-om*, was used with other stems than those in -*o-*. With regard to all these processes we must remember that the speaker had no clear consciousness of the point of junction between stem and case-ending, least of all where vowel-contraction had taken place (vol. I p. 106 ff.).

Idg. Masc. **u̯lq-o-s* 'wolf' (√*uelq-* 'tear'): Skr. *v̥lka-s* Armen. gen. sing. *gailo-y* (cp. I § 455 p. 336) Gr. λύκο-ς (Lat. *lupu-s*) Goth. dat. pl. *vulfa-m* Lith. *vilka-s* O.C.Sl. instr. sing. *viŭko-mě*. Neut. **jug-ó-m* 'yoke' (√*jeug-* 'yoke, put to'): Skr. *jugá-m* Gr. ζυγό-ν Lat. *jugu-m* Goth. dat. pl. *juka-m* O.C.Sl. instr. sing. *igo-mě*. Fem. **gen-ā-* **gyn-ā-* **gn-ā-* 'woman' (√*gen-*): Skr. *gnā-* Gr. Att. γυνή Boeot. βυνά O.Ir. nom. *ben* gen. *mnā* Goth. *qinō* O.Icel. *kona* (in Germ. it has passed over to the *n*-declension) O.C.Sl. *žena*.

Aryan. Skr. *ghōṣ-a-* m. 'sound, noise' Avest. *gaoš-a-* m. 'ear' O.Pers. *gauš-a-* m. 'ear', nom. sing. pr. Ar. **ghayṣ-a-s*. Skr. *bhág-a-s* m. 'distributor, bestower of blessings' Avest. *bay-a-* m. 'God': O.C.Sl. *bog-ŭ* 'God'. Skr. *nīd-ā-s* 'resting-place, couch, nest': Armen. *nist* 'position, seat, possession', Lat. *nīdu-s*, O.Ir. *net* O.H.G. *nest* 'nest', Idg. **ni-zd-ó-s* 'settling-place'. Skr. *mēh-a-* n. 'urine' Avest. *gao-maēz-a-* n. 'cow's urine'. Skr. *pad-ā-m* 'standing-place, place, position': Gr. πέδ-ο-ν 'ground, field', Lat. *Ped-u-m*, *oppid-u-m*. Skr. *jy-ā-* Avest. *jy-ā-* 'bowstring': Lith. *giy-à* 'string, cord'. Skr. *janagh-ā-* 'upper part of the foot': cp. Lith. *pra-žang-a* 'transgression' (√*ghenagh-*). Skr. *mud-ā-* 'joy'. Avest. *der'z-a-* 'bundle, basket'.

Adjectives. Skr. *dīrgh-ā-s -ā-m -ā* Avest. *dar'γ-ō -e-m-a* O.Pers. *darg-a -a-m -ā* 'long': Gr. δολιχ-ό-ς -ό-ν -ή.

In Aryan, transference into the *o*-declension is common. In many cases no doubt this must have taken place in proethnic Aryan; cp. e. g. Skr. *mās-a-* Avest. *mānəh-a-* with Skr. *mās-* 'month' (cp. § 134), Skr. *nār-a-* Avest. *nar-a-* with Skr. *nār-*

'man' (Gr. ἀνῆρ-), Skr. *pād-a-* Avest. *pāḍ-a-* beside Skr. *pad-* 'foot'. In other cases however, it belongs to the developement of the separate dialects: e. g. Skr. Ved. *pūṣān-a-s* from *pūṣān-*, name of a god, Prākṛ. part. nom. *carant-ō* gen. *carant-assa* etc. instead of Skr. *cārant-* 'going, moving' (and so often in the popular dialects); Avest. loc. sing. *vīs-ē* O.Pers. instr. pl. *vīp-aibiš* from *vīs-* *vīp-* 'village', Avest. gen. sing. *stār-ahē* from *star-* 'star', dat. sing. *airyaman-ai* from *airyaman-*, the personified spirit of prayer, part. nom. sing. *jaiḍyant-ō* etc. 'beseeching'. The point of contact from which this metaplastic process sprang was the phonetic similarity of the accusative endings -am = Gr. -α and -a-m = Gr. -ο-ν (p. 110).

In Sanskrit there is a large group of denominative adjectives formed with -o -ā-, with the meaning 'related to, or connected with' that which is denoted by the noun from which they are derived, especially with the meaning, 'sprung from'. The first syllable of the word usually has what is called the *vṛddhi* grade, that is the second or 'highest' form of the strong or 'high' grade. E. g. *mānas-ā-s* 'related to the mind (*mānas-*)', *śavitr-ā-s* 'sprung from the sun (*śavitár-*)', *sāindhav-ā-s* 'sprung from the Indus (*śindhu-ṣ-*)'. If the contained stem is itself an *o*-stem, the adjective is formed without modifying the suffix; e. g. *amitrā-s* 'hostile' from *amitra-s* 'foe'. Similar derivatives are found, though more rarely, in Iranian; as O.Pers. *mārgav-a-* 'inhabitant of Margiana' from *mārgū-š* 'Margiana', Avest. *ār'zva* (or *ārza*) 'good works' from *er'zu-* 'just, right', *kāvay-a-* 'kingly' from *kavi-š* 'king', *temaṁh-a-* 'dark' (-ṁh- for -s-, see I § 558 p. 414) from *temah-* 'darkness' (cp. Skr. *tāmas-a-* from *tāma-s*), *airyav-a-* 'offspring of Airyu'. Although the particular forms that furnished the type for this category of nouns in Aryan, and the origin of the *vṛddhi*-strengthening, which occurs also in other derivative nouns (cp. § 93), are still undiscovered, yet it is at least probable that the class took its rise in such *o*-stems as had undergone a modification of meaning similar to that which we find in the epithetised compounds (see § 50), and that *o-* was then added to other stems in imitation of these. The use of

the suffix was extended by the desire to render easier the Differentiation (or modification to express gender) of adjectives; and we find an unmistakable parallel in the treatment of the final members of compound words; compare *-tamas-a-* from *támas-* 'darkness', *-aśman-a-* from *áśman-* 'stone', *-bhruv-a-* from *bhrú-* 'eyebrow', and especially instances like *daśanagulá-m* 'length of ten fingers' from *anaguli-* 'finger' (Whitney Skr. Gr. § 1315^b), which are on a level with formations like *nāiryatá-* 'belonging to *nīryti-*'.

Remark 1. Cp. von Bradke, Über die *Vṛddhi* in der secundären Nominalbildung, Ztschr. der deutsch. morgenländ. Gesellsch. XL, 361 ff. — The suggestion that Lat. *ovo-m* 'egg' is related in the same way to *avi-s*, and means 'that which proceeds from a bird', is unsatisfactory. Rather we may compare such instances as Gr. ἡγεμόεις beside ἄγεμο-ς, ἀμφ-ἡριστο-ς beside ἡρίζω. Doublets that had arisen with different grades of ablaut in the root-syllable were in Aryan adapted to convey two distinct meanings, while in Greek they subserved a particular principle of rhythm. In either case, our endeavour must be to discover the oldest forms which gave the type for the whole series.

Armenian. *orb*, gen. *orbo-y*, 'orphan': Lat. *orbu-s*, Gr. ὀρφο-βότης 'one who brings up orphans'. *gorc*, gen. *gorco-y*, 'work': Avest. *var*z-a-* m. 'working, action', Gr. ἔργο-ν O.H.G. *werc* n. 'work'. Adj. *hin*, gen. *hn-o-y*, 'old': Skr. *sán-a-s* Gr. ἔνο-ς O.Ir. *sen* Lith. *sēn-a-s* 'old'.

The *a*-declension, as we have already remarked in § 59 p. 109, was entirely lost.

Greek. *φηγ-ός* 'oak': Lat. *fag-u-s* 'beech'. *οἶκ-ος* 'house': Lat. *vīc-u-s*. *πόρ-ος* 'a penetrating, passing through, passage' *πορ-ός* 'penetrating' (*ὁδοιπόρος* for **ὁδοι-πορός*, I § 676 p. 542 f.): Skr. *pār-a-* 'navigation, passage by sea' *pār-ás* 'transporting'; *τόμ-ος* 'cut, slice' *τομ-ός* 'cutting, sharp'; *ἄγ-ός* 'guide, leader': Skr. *aj-ás* 'driver'. *ζυγ-όν* 'yoke': Skr. *yug-á-m*. *πληγ-ή* 'blow': Lat. *plag-a*. *ροή* Corcyr. *ρhofá* 'stream, flowing' from *ρέω*: Lith. *srav-à* 'a flowing, bleeding'. *σπουδ-ή* 'zeal, earnestness' from *σπεύδω*. *πορβ-ή* 'nourishment' from *φέρβω*.

Adject. *ὠμ-ός* *ὠμ-όν* *ὠμ-ή* 'raw': Skr. *ām-ás* *-á-m* *-á* 'raw'.

Observe that *λαῖός* 'people' stands for *λα(φ)-ός* (*Λαφο-κόφων* is preserved by Priscian); see I § 611 p. 462.

The endings of *o*-cases are often transferred to other classes of stems; as *οὖν* in *ποδ-οῖν -οῖν*, *-οις* in *πόδ-οις* for *ποδί*, *-ον* in *πολίτ-ον*.

Italic. Lat. *popul-u-s* *popl-u-s*, Umbr. *popl-o-m* acc. 'populum'. Lat. *dol-u-s* Osc. *dolud* abl. 'dolo': Gr. *δόλ-ο-ς* 'wile'. Lat. *dom-u-s*: Gr. *δóμ-ο-ς* 'house'. Lat. *unc-u-s*: Skr. *an̥k-á-s* 'hook', Gr. *ὄγκ-ο-ς*, 'something bent or bowed out, hook, extended circumference'. Lat. *for-u-m*, Umbr. *furo* 'forum': Skr. *dvār-a-m* 'door, entrance, exit' (*d-* instead of *dh-*, see I § 480 p. 354), O.C.Sl. *dvor-ŭ* m. 'enclosure'. Osc. *ter-o-m* 'terra, territorium'. Lat. *porc-a*, fem. of *porc-us*, Umbr. *purk-a* *porc-a* 'porcas'. Lat. *lump-a* (*lymph-a*, cp. I p. 42 footnote), Osc. *Diump-a-is* 'Nymphis'. Lat. *deiv-a* *div-a* (fem. of *deiv-o-s*), Osc. *deiv-aí* dat. 'divae'. Lat. *lir-a* 'furrow, ridge between two furrows': O.H.G. *wagan-leis-a* 'cart-track, road' O.C.Sl. *lěch-a* 'ridge of earth'.

Here should also be mentioned the Umbr.-Samn. infinitives in *-o-m*, as Umbr. *erom* Osc. *ezum* 'esse', Umbr. *a-ferum* *a-fero* 'circumferre', Osc. *deicum* 'dicere' *moltaum* 'multare' (cp. § 156).

Adject. Lat. *rōb-u-s -u-m -a*, Umbr. acc. pl. masc. *rof-u* 'rufos' fem. *rof-a* 'rufas': Goth. *ráuþ-s* *ráuþ* *ráud-a* 'red'.

Old Irish. Masc. *dia*, gen. *dē*, 'God' pr. Kelt. **deiu-o-s*: Skr. *dēv-á-s* Lat. *deiv-o-s* *deu-s* (I § 172 p. 152) Lith. *dėv-a-s* 'God', cp. Skr. *div-* Gr. *Δι-* 'heaven, god of heaven'. *orc* 'pig': Gr. *πόρκ-ο-ς* Lat. *porc-u-s* O.H.G. *farh* *farah* Lith. *pařsz-a-s* 'pig, sucking-pig'. O.Ir. *at-trab n-* Mid.Ir. *aít-treb n-* 'possession, dwelling' no doubt to be compared with Goth. *þaúrþ* 'field, land' O.H.G. *dorf* 'village'. Fem. *ben*, gen. *mn-ā*, 'wife': O.C.Sl. *žen-a* etc., see p. 111 above. *coss*, pl. *coss-a*, 'foot': Lat. *cox-a*, O.H.G. *hahs-a* 'hollow of the knee'. *ferg* *ferc*, gen. *ferge*, 'wrath': Gr. *ὄργ-ή* 'impulse, passion'.

Adject. *caech* m., *caech n-* n., *caech f.* 'blind': Lat. *caecu-s -u-m -a*, Goth. *háih-s* *háih* *háih-a* 'one-eyed' *ōg* 'integer', from *✓aug-*.

Germanic. Goth. *sn̥div-s* O.H.G. *sn̥eo* m. 'snow': Lith. *sn̥g-a-s* O.C.Sl. *sn̥g-ŭ* 'snow', *✓sneigh-*. Goth. *dag-s* O.H.G.

tag m. 'day': Skr. *ni-dāgh-a-s* 'hot season', Lith. *dāg-a-s* 'harvest'. O.H.G. *teig* m. O.Icel. *deig* n. 'dough': Skr. *dēh-a-s* 'body', Gr. *τοιχ-ο-ς* 'wall', ✓ *dheigh-* 'besmear, cement'. O.Icel. *draug-r* m. 'ghost': Skr. *drōgh-a-s* 'injury inflicted deceitfully'. Goth. *juk* O.H.G. *joh* n. 'yoke': Skr. *yug-ā-m* etc. Goth. *dal* O.H.G. *tal* n. 'valley': Gr. *θόλ-ο-ς* 'cupola, dome', O.C.Sl. *dol-ŭ* 'valley'. Goth. *ahv-a* O.H.G. *ah-a* 'water': Lat. *aqu-a*. Goth. *gib-a* O.H.G. *geb-a* 'gift', beside Goth. *giban* 'to give'. Goth. *stāig-a* 'path, way', beside *steigan* 'to climb'.

Adject. Goth. *lagg-s* *lagg* *lagg-a* O.H.G. *lang* 'long': Lat. *long-u-s* -*u-m* -*a*. Goth. *liuf-s* *liuf* *liub-a* O.H.G. *liob* 'dear, beloved': O.C.Sl. *ljub-ŭ* -*o* -*a*.

Transference into the *o*-declension is frequent, into the *ā*-declension more rare; e. g. nom. sing. Goth. *frijōnds* O.H.G. *friunt* 'friend' gen. sing. *frijōndis* *friuntes* and other forms with terminations of the *o*-declension, contrasted with the nom. pl. Goth. *frijōnds* O.H.G. *friunt* etc. which have not modified the original -*nt-* stem (§ 126), O.H.G. nom. pl. *tohtera* 'daughters' dat. pl. *tohterōn* beside the older pl. *tohter* = Gr. *θυγατέρ-ες* (§ 122).

Balto-Slavonic. Masc. Lith. *mūs-a-s* 'film (on liquids)' O.C.Sl. *mūch-ŭ* 'moss': O.H.G. *mos* n. 'moss'. Lith. *āt-lėk-a-s* O.C.Sl. *otŭ-lėk-ŭ* 'remnant, remainder': Skr. *ati-rėk-a-s* 'remnant, excess' Gr. *λοιπ-ό-ς* 'remaining'. Lith. *ūž-vaik-a-s* 'outside covering, bed-covering' O.C.Sl. *oblak-ŭ* 'cloud' (for **ob-vlak-ŭ*, cp. I § 184 p. 160): Gr. *όλκ-ό-ς* 'a drawing, thing drawn'. O.C.Sl. *glagol-ŭ* 'sound, word' (for **gol-gol-ŭ*, cp. I § 281 p. 224): Skr. *gar-gar-a-s*, a musical instrument. Neut. O.C.Sl. *igo* 'yoke': Skr. *yug-ā-m*; O.C.Sl. *tŭl-o* 'ground': Skr. *tal-a-s* 'surface, ground' (✓ *tel-*); in Lith. the masc. termination is found in the nom. acc.; e. g. *jūng-a-s* 'yoke', a modification of the Idg. **jug-ó-m*. Fem. Lith. *vaps-à* 'gadfly' O.C.Sl. *vos-a* 'wasp' (I § 545 p. 399): O.H.G. *wafs-a* 'wasp'. Lith. *rank-à* O.C.Sl. *rak-a* 'hand', beside Lith. *renkù* 'I gather, collect'.

Adject. Lith. *saus-a-s* *saus-a* *saus-à* O.C.Sl. *such-ŭ* -*o* -*a* 'dry': Skr. *śōṣ-a-s* -*a-m* -*ā* 'drying, parching' (ś- for s-, I § 557, 4 p. 413), Gr. Ion. *αῦ-ο-ς* *αῦ-ο-ν* *αὔ-η* 'dry'.

Remark 2. It may not be premature to notice here that the Lith. neuter form in *-a* arose from *-o-ā* and not from *-o-m*, and is therefore a pronominal termination. See R. Garbe, Litau. und lett. Drucke des 18. u. 17. Jahrh., IV p. XLI.

§ 61. The Suffix *-tu-o-* *-tu-ā-* (*-tuy-o-* *-tuy-ā-*).¹⁾ This is an extension of *-tu-* *-tey-* (§ 108).

Originally it was no doubt primary, and used to form adjectives (cp. e. g. Skr. *kār-tuva-s* *kār-tva-s* 'faciendus', beside the inf. *kār-tu-m*) whose neuter and feminine forms were used as abstract substantives, on the analogy of which derivative abstract substantives were also formed from nouns (§ 158).

The accentuation of Sanskrit formations like *dēva-tvā-m* 'divinity', and the *d* of the Goth. *þīva-dv* 'servitude' (see I § 530 p. 386 f.), shew that **-tuo-m* was the form assumed by the suffix in these secondary abstract substantives in Indo-Germanic.

Compare Ar. *-tvana-* Gr. *-ovvo-* § 70.

In Aryan, the suffix is frequent. In Skr. it appears in gerundives like *kār-tuva-s* *kār-tva-s* 'faciendus' *jān-tuva-s* *jān-tva-s* 'procreandus'. The neuters of these gerundives are often used substantivally, as *kār-tva-m* 'task, work to be done'. Compare also Avest. *varš-tve-m* 'work, action' (beside *ver'z-yē-mi* 'I do'), *stao-þwe-m* 'prayer' (beside *stao-mi* 'I praise, pray'). Secondary formations in **-tuo-m*: Skr. *dēva-tvā-m* 'divinity' (*dēvā-s* 'god'), *śatru-tvā-m* 'enmity' (*śātru-ś* 'enemy'), *rakṣas-tvā-m* 'demoniacal nature' (*rakṣās-* 'monster, demon'), Avest. *aṇhu-þwe-m* 'lordship, might' (*aṇhu-ś* 'lord'), *fratema-þwem* 'a being first, nobility' (*fratema-* 'first').

As to the interchange of *-tva-* and *-tuva-* in Sanskrit see Edgren, Journal of the American Orient. Soc., XI 82 sq.

In Latin it is rare. We can scarcely count *mor-tuo-s* (for **mṛ-tuo-s*): O.C.Sl. *mŕi-tvŭ* 'mortuus' as an example, cp. I § 170 p. 150; see § 64 Rem. 3 below. But *Fā-tuo-s* ('soothsayer') and *mā-tuo-s* no doubt belong here (with the suffix in the form *-tuyo-*); see I § 170 p. 151.

1) Benfey, Indog. Part. Perf. auf *tua* oder *tva*, Nachr. der Götting. Gesellsch. d. Wissensch., 1873, n. 7.

In Germanic it is not common. Goth. *vaurstv* n. 'work' for pr. Germ. **wurx-s-tuā-n*, whose *-s-* must be compared with that of *-s-tro-* (§ 62), *-s-lo-* (§ 76), *-s-ti-* (§ 100), *-s-tu-* (§ 108), *-s-men-* (§ 117) ¹). *ahtvō* f. 'morning twilight' for **urx-tuō-* (transferred to the *n*-inflexion), ground-form **r̥q-tuā-*, compare directly Skr. *aktū-ṣ* 'brightness' for **r̥q-tu-s*, and less immediately Skr. *añj-i-ṣ* 'ointment, adornment'. *vah-tvō* or *vah-tva* (only the dat. pl. *vahtvōm* is actually found) 'watch, guard', from *vakan* 'to watch'. A.S. *læs*, gen. *læswe*, f. 'letting blood' for **lēsuō-* i. e. **lēt + tuō-*, beside Goth. *lētan* 'to let', *ræs*, gen. *ræswe*, f. 'counsel' for **rēsuō-* i. e. **rēd + tuō-*, beside Goth. *rēdan* 'to counsel' (cp. I § 527 p. 382). As in all the instances given, so in Goth. *frija-pva* 'love' and *fija-pva* 'enmity' from *frijōn* 'to love' and *fijōn* 'to hate' the suffix is to be regarded as primary; yet *frija-pva* (in imitation of which *fija-pva* was afterwards formed) was originally a secondary formation, from the adj. *frija-* ('fre')e, which in the prehistoric period had meant 'dear', cp. Skr. *priya-tvā-m* 'a being beloved' from *priyā-* 'dear, beloved'. Goth. *piva-dv* n. 'servitude' from *pīu-s* 'servant'.

In Slavonic it is frequent. Primary: Masc.: O.C.Sl. *mrī-tvū* 'mortuus?' (see above), O.C.Sl. *rybi-tvū* 'fisher'; Neut. Russ. *jas-tvo* 'food', Russ. *ši-tvo* 'sewing', O.C.Sl. *čuvi-tvo* 'organ of sense'; Fem. O.C.Sl. *jas-tva* 'food' *žę-tva* 'harvest' *moli-tva* 'prayer' *goni-tva* 'pursuit'. Secondary *-(i)s-tvo* (cp. the suffix *-iskū* § 90): *zělīstvo* 'violence' (*zělū* 'violent'), *dětīstvo* 'childhood' (*děte* 'child'); probably this form of the suffix started from stems in *-i-*, cp. *tatīstvo* 'theft', from *tatī* m. 'thief', *blędīstvo* 'boasting, bluster' from *blędī* f. 'deceit, farce' (cp. *-ība* § 78). In Lithuanian Leskien is probably right in tracing this suffix in the group of names of tools formed with *-tuva-*, such as *kosz-tūva-s* 'strainer, filter' (*kósziu* 'I filter'), *rės-tūva-s* 'roller for winding yarn' (*rēcziū* 'I roll, wind'), *karsz-tūvai* pl. 'woolcarder's comb' (*karsziūvūnas*

1) Goth. *gáidv* n. 'lack' no doubt belongs rather to $\sqrt{gheidh-}$ 'desire' (O.H.G. *gūt* 'eagerness, greed') than to *gei-gan*, i. e. it should be analysed *gáid-v*, not *gái-dv*.

'I card wool'), *min-tuwaĩ* pl. 'a machine for breaking flax, brake' (*minū linūs* 'I tear flax'). Cp. also Pruss. *pre-artue* 'ploughshare' and *ar-twes* 'ship's voyage'.

§ 62. The Suffix *-tr-o-* *-tr-ā-*, *-tl-o-* *-tl-ā*¹⁾. This is an extension of *-ter-* *-tor-* (§ 119 ff.), cp. e. g. Skr. *ari-tra-* 'oar' from *ari-tar-* 'rower'. Perhaps *l* arose from *r* by some process or processes of assimilation or dissimilation (partly in proethnic Indo-Germanic, partly in the separate languages), cp. I § 282 p. 225 f.²⁾.

The meaning is generally that of the instrument or the place of the action.

Indo-Germanic. Skr. *bharti-tra-m* 'arm' (that with which one bears), Gr. *φῆρ-τρο-ν* *φῆρ-τρο-ν* 'litter, bier', Lat. *prae-feri-culu-m* 'wide sacrificial dish' (regarded as the instrument for carrying something offered) *fer-culu-m* 'litter, bier'. Skr. m. n. *ari-tra-* O.H.G. n. *ruo-dar* Lith. *ir-kla-s* 'oar', cp. also Gr. *Ῥοῖ-τρο-ια* 'Oarstown'. Skr. *mā-tra* Gr. *μέ-τρο-ν* 'measure' (or should we follow de Saussure, *Mém. de la Soc. de lingu.* VI 248, in assuming this to stand for Idg. **metro-* i. e. **med* + *tro-*?).

Aryan. Skr. *kṣa-trā-m* Avest. *xša-pre-m* O.Pers. *xša-ša-m* 'lordship'. Skr. *vās-tra-m* Avest. *vas-tre-m* 'garment, vesture'. Skr. *dhār-tra-m* 'support' Avest. *dar-pre-m* 'an upholding, holding fast'. Skr. *vahī-tra-m* 'ship': Lat. *vehi-culu-m*. Skr. *hō-tra* Avest. *zao-pra* 'libation, offering': Gr. *χύ-τροᾶ* 'pot' *χύ-τρο-ν* 'libation'.

Armenian. *arōr araur*, gen. *arauro-y*, 'plough' for **ara-tro-* (I § 360 p. 276, § 483 p. 357): Gr. *ἄρο-τρο-ν* 'plough', Lat. *arā-tru-m*, O.Icel. *ar-pr* m. 'ploughing', Lith. *ār-kla-s* 'plough'.

1) S. Bugge, Bemerkungen über den Ursprung der lateinischen Suffixe *clo*, *culo*, *cro*; *cla*, *cula*, *cra*, Kuhn's Ztschr. XX 134 ff. G. J. Ascoli, Die lateinischen Formen des ursprünglichen Instrumentalsuffixes *-tra* (1867), Krit. Stud. 123 ff. H. Osthoff, Die mit dem Suffixe *-clo-culo-* *-cro-* gebildeten nomina instrumenti des Lateinischen, Forsch. im Geb. der. nomin. Stammbildung I 1 ff.

2) In I p. 226 l. 5 instead of 'the nominal suffixes *-tro-* and *-tlo-* beside *-dhro-* and *-dhlo-*', read 'the nominal suffixes *-tlo-* and *-dhlo-* beside *-tro-* and *-dhro-*'.

alaur-i 'mill' (from *alam* 'I grind') was a secondary extension of a *tro*-stem: cp. Gr. ἀλέ-τρο-ιο-ς 'belonging to grinding' ἀλε-τρο-εῖω 'I grind to powder' ἀλετριβανος for *ἀλετρο-τριβανο-ς 'pulverising by grinding, pestle'.

Greek. ῥόπ-τρο-ν 'tambourine, lever of a trap' A.S. *ræf-ter* m. 'beam'. ἔλν-τρο-ν 'covering, that which contains': Skr. *varū-tra-m* 'upper garment'. λέκ-τρο-ν 'couch, bed': O.C.Sl. *lātr* 'lair of wild animals' pr. Germ. **laχ-tra-*. δέλε-τρο-ν 'bait, lure', compare no doubt O.H.G. *quer-dar* 'bait, lure' (J. Schmidt, Kuhn's Ztschr. XXV 153). νλπ-τρο-ν 'water for washing'. ῥή-τρᾶ 'agreement, treaty'.

ἄν-τλο-ν ἄν-τλο-ς ἄν-τλη 'bilge-water, dead-water, baling scoop': cp. Skr. *āma-tra-m* 'vessel, jug, drinking-cup' (Lat. *ex-antlāre ex-anclāre* is the Greek ἐξ-αντλεῖν borrowed, cp. I § 367 p. 278). ἐχέ-τλη 'plough-tail'.

Italic. Lat. *cas-tru-m* and fem. *cas-tra*; in Umbr.-Samn. the word has passed into other declensions, Osc. *castroos* gen. 'fundi' *castrid* abl. 'fundo' Umbr. *kastruvuf* 'fundos'. Lat. *rōs-tru-m* (*rōdō* 'I gnaw'), *arā-tru-m*, *fulgē-tru-m* *fulgē-tra*. Umbr. *kle-tram* 'lecticam': Goth. *hlei-p̥ra* 'hut, tent', √ *klej-*.

-tlo- became *-klo-* in proethnic Italic, except where *s* preceded (I § 366 p. 278). Lat. *piā-clu-m -culu-m*, Umbr. *piha-klu* 'piaculorum'. Lat. *sae-clu-m -culu-m*: Lith. *sė-klà* 'seed'. Lat. *ind-ū-cula sub-ū-cula*: Avest. *ao-p̥re-m* 'sandal', Lett. *āu-klā* a kind of string (in Lith. the declension has changed, *au-klė* 'bandage for the feet'). Umbr. *eh-vel-klu* 'edictum, decretum', *mantrah-klu* 'mantelē'. Osc. *sakara-klúm* 'sacrum'. *-tlo-* is kept after *s* in Osc. *pes-tlú-m* 'sacellum, templum': Umbr. *pers-clu pes-clu* 'supplicationē'. *-clo-* became *-cro-* in Latin by dissimilation where an *l* preceded (I § 269 p. 217): *lavā-cru-m*: Gr. λος-τρό-ν λουτρό-ν 'bath, water for washing', Gall. *lau-tro* 'balneo', O.Icel. *lau-ðr* 'soap'; *lu-cru-m*; *in-volū-cru-m*.

Rarely we find *-s-tro-*, as *mōn-s-tru-m capi-s-tru-m* (cp. the Germanic); whence also nouns in *-āster -āstra -āstru-m*, like *formāster*, *oleāster* *oleāstru-m* (see Seck, Archiv f. lat. Lexicogr. I 390 ff. Schnorr von Carolsfeld, ibid. 404 ff.).

Old Irish. *lō-thor lō-thur* n. 'alveus, canalis' Gall. *lau-tro* 'balneo': Lat. *lavā-crum* etc., see above. *tara-thar* n. 'boring tool, gimlet': Gr. *τέρε-τρο-ν* 'gimlet'. *criathar* n. 'sieve': O.H.G. *hrī-ttara* 'sieve'? (see the end of the section, p. 122). *ara-thar* n. 'aratrum': Armen. *arōr* etc., see p. 118. *bria-thar* f. 'word'. *cētal* n. 'song' (*cētlo-* for **can-tlo-*). With regard to the developement of *-thar* from **tro-m* and from **trā*, and of *-tal* from **tlo-m*, see I § 623 Rem. 1 p. 469 and § 634 p. 475.

cenēl n. 'family, race' O.Cymr. *cene-tl*. *scēl* n. 'narration, tale' Mod.Cymr. *chwedl* for pr. kelt. **skū-e-tlo-n*, √ *seq* 'say'. *anāl* f. 'breath' Mod.Cymr. *ana-dl*. Cp. I § 110 p. 104, § 518 p. 371 f., § 620 p. 467.

Germanic. The *p* of the pr. Germ. *-pra-* *-pla-* indicates that the sonant next preceding it bore the principal accent (I § 529 p. 384 f.). O.H.G. *lio-dar* A.S. *hleó-ðor* 'sound, noise', pr. Germ. *hlēy-pra-*: Skr. *śrō-tra-m* 'hearing, ear'. Goth. *smatr-pr* n. 'grease, fat', √ *smer-* 'besmear'. Goth. *hleī-pra* 'tent': Umbr. *kle-tram* 'lecticam', √ *klej-*. O.H.G. *sta-dal* m. 'shed, barn': Skr. *sthā-trā-m* 'standing-place, position'. O.H.G. *wa-dal we-dil* m. n. 'fan, tuft', √ *yē-* 'blow'. Goth. *nē-pla* and *nā-dla* 'needle' (cp. Bremer, Paul-Br. Beitr. XI 5. 277 f.).

O.H.G. *bīhal* n. 'hatchet' pr. Germ. **bīpla-*, Idg. **bhejtlo-* for **bhejd + tlo-*, √ *bhejd-* 'findere' (is O.Ir. *biail*, gen. *bēla*, 'hatchet' connected with this?); O.H.G. *sedal* n. m. 'seat' pr. Germ. **sepla-*, Idg. **setlo-* for **sed + tlo-*, √ *sed-* 'sit'. I follow de Saussure, Mém. de la Soc. de lingu. VI 247. 255').

After spirants, *t* is kept (thus the original accent cannot be determined): Mid.H.G. *wes-ter* f. 'baptismal robe' Skr. *vās-tra-m* 'garment'; Goth. *gilstr* n. 'tribute' from *gild* 'tribute' √ *gheldh-*; O.H.G. *bluostar* n. 'offering' (Goth. derivative *blōstreis* 'offerer') beside Goth. *blōtan* 'offer'; O.H.G. *riostar* n. and *riostra* f. 'ploughshare' beside Mid.H.G. *riuten* 'root out'; O.H.G. *hlahtar* n. O.Icel. *hlattr* m. 'laughter'.

1) Germ. **bīpla-*, like Gr. *πτερός*; 'log, piece of wood', which de Saussure similarly derives from *bhejd-*, might certainly be connected with O.C.Sl. *bi-ti* 'strike' *u-boj-ī* 'deathblow'.

Pr. Germ. *-āra-* *-āla-* indicate that this suffix bore the accent (cp. Skr. *as-trā-m* *dā-trā-m* etc.), see I § 530 p. 386 f.; yet these pr. Germ. suffixal forms may also represent Idg. *-dhro-* *-dhlo-*, see p. 122. Idg. *-tro-* is probably seen e. g. in Goth. *fō-dr* 'scabbard' O.H.G. *fuo-tar* A.S. *fō-ddor* n. 'case, sheath': Skr. *pā-tra-m* 'that which contains, vessel'.

-s-tra- is fairly frequent; as O.H.G. *gal-s-tar* n. 'song' from *galan* 'sing', compare A.S. *zeal-dor* n. O.Icel. *gal-dr* m.; Goth. *huli-s-tr* 'covering' from *huljan* 'cover'. Cp. Osthoff, Über das eingedrungene *s* in der nominalen Suffixform *-stra-*, Kuhn's Ztschr. XXIII 313 ff., and *-s-tyo-* (§ 61), *-s-lo-* (§ 76), *-s-ti-* (§ 100), *-s-tu-* (§ 108), *-s-men-* (§ 117).

Balto-Slavonic. *-tro-* is found only in a few uncertain examples, as Lith. *vē-tra* 'storm' O.C.Sl. *vě-trŭ* 'air, wind'. The uncertainty is caused by the possibility of a later transference into the *o-* or *ā-*declension, which has undoubtedly taken place in O.C.Sl. *bratr-ŭ* 'brother' *sestr-a* 'sister'.

-tlo- occurs only in Baltic, where it appears in Lith. and Lett. as *-kla-* (I § 377 p. 285 f.). Pruss. **sen-tla-* 'token, sign' in the partic. *eb-sentliuns* 'having betokened, marked' Lith. *žėn-kla-s* 'token, sign': cp. Skr. *jñā-tra-m* 'ability to recognise' O.H.G. *be-cnuodelen* 'give a sign of recognition' *ir-chnuodilen* 'become perceptible'; from which we may deduce a pr. Germ. form **knō-pla-*. Pruss. *sper-tla-n* 'cushion of the toes', beside Lith. *spir-iū* 'strike with the foot'. Lith. *sė-klà* Lett. *sē-kla* 'seed': Lat. *sae-culu-m*. Lith. *bū-klà* 'home' *bu-kla-s* (*ū*?) 'lair of an animal': Skr. *bhavi-tra-m* 'world' (this meaning is not certain) A.S. *bold* (for **bodl*) O.Icel. *böl* 'house' pr. Germ. **bu-pla-*. In Slav. *-tlo-* was replaced by *-dhlo-*, see below.

In the European branches, *-dhro-* *-dhlo-* are found side by side with *-tro-* *-tlo-*, and with the same meaning; and the former often displace the latter. Cp. e. g. Gr. *γένε-θλο-ν* *γενέ-θλη* 'origin, race, scion, birthplace': Skr. *jani-tra-m* 'birthplace'. *ἔδε-θλο-ν* 'seat': Lat. *sedī-culu-m*, Lett. *sēde-kli-s* 'seat' (with the addition of the suffix *-jo-*). Lat. *tere-bra*: Gr. *τέρε-τρο-ν* O.Ir. *tara-thar* n. 'borer'. Lat. *sta-bulu-m*: O.H.G. *sta-dal* 'barn'.

Pr.Germ. -*dra-* -*āla-* is ambiguous (see p. 121): is for example O.H.G. *hri-ttara* 'sieve' connected with O.Ir. *cria-thar* or with Lat. *cri-bru-m*? In Slav. only -*dhlo-* occurs, as Czech *rd-dlo* O.C.Sl. *ra-lo ora-lo* 'plough': Lat. *ara-tru-m* etc. (see p. 119), Czech *by-dlo* 'dwelling' Pol. *by-dło* 'cattle, means': Lith. *bū-klà* 'home'. Cp. § 77.

§ 63. The Suffix -*io-* -*iā-*, -*iio-* -*iīā-*¹⁾.

With regard to the fluctuation between -*iio-* and -*io-* see I § 117 p. 110. § 120 p. 111 ff. A parallel form -*īio-* is also found (e. g. Skr. *ṛtī-īya-s* Gr. *πρωτὶ μ-τῆ*), whose relation to the two other forms is obscure; it resembles the Skr. -*īyas-* Gr. -*τῶν* (§ 135), forms of the comparative suffix.

In the nom. sing. we find in different languages -*īi-* or -*i-* instead of and parallel to -*io-*. Thus Goth. *har-ji-s*, *brūks* for **brūk-i-s*, *haiṛd-ei-s*; Umbr. *Trutit-i-s* 'Truttidius' (also in the acc., *Fisim* 'Fisium' and neut. *terti* 'tertium'), Osc. *Viñikiis* 'Vinicius' (*i*), *Púntiis* 'Pontius' (*i* or -*īi-*), *Heirennis* 'Herennius' (also neut. *medic-i-m* 'magisterium'), O.Lat. *Cornēl-i-s* (and acc. *Cornēl-i-m*, cp. also voc. *filī*); Lith. *mēd-i-s* and *gaid-ỹ-s*²⁾.

From the earliest period this suffix was both primary and

1) H. Kern, Le Suffixe *ya* du Sanscrit classique, *ia* de l'Arien, Mém. de la Soc. de lingu. II 321 ff. F. G. Benseler, De nominibus propriis et Latinis in *is* pro *ius* et Graecis *ις ιν* pro *ιος ιον* terminatis, Curtius' Stud. III 147 ff. G. F. Aly, De nominibus *io* suffixi ope formati, Berol. 1873. J. Akens, Über die Adjectiva auf *aios, eios, ηios, oios, ωios*, Emmerich 1873. G. Meyer, Das Nominalsuffix *io* im Griech., Kuhn's Ztschr. XXII 481 ff. A. Fick, Zum sogenannten *ja*-suffix im Griech., Bezenb. Beitr. I 120 ff. K. Zacher, De nominibus Graecis in -*aios -aia -aion*, Halle 1877. A. Fritsch, Zum Vokalismus des Herodotischen Dialektes [on -*ηio-* and -*εio-* in syllables containing derivative suffixes], Hamburg 1888. Th. Aufrecht, Über die lateinischen Suffixe *tia, tio*, Kuhn's Ztschr. VI 177 ff. W. Schlüter, Die mit dem Suffixe *ja* gebildeten deutschen Nomina, Göttingen 1875.

2) In I § 84 Remark 1 p. 80, I assumed the existence of -*īi-* as a form of the Idg. suffix beside -*io-*. As my pupil Prof. W. Streitberg has recognised, it is preferable to assume -*i-* -*i-* as the original forms (-*i-*:

secondary, and its neuter and feminine forms are frequently used as substantives (§ 158).

Three chief functions of this suffix may be distinguished.

1. It forms verbal adjectives with the meaning of the so-called fut. pass. participles or participles of necessity, or with a simple participial meaning, active or passive. In Sanskrit, but nowhere else, these adjectives appear as a class of forms in active and extensive use. The neuter and the feminine are often used as abstract substantives (see above).

Idg. Skr. *yāj-ya-s* Gr. *ᾱγ-ιο-ς* 'venerandus', fem. *yāj-yā āγ-ιά*, *✓iāg-* 'revere'. Skr. *sāc-īya-s* 'whom one must help, must value', Gr. *ἀσασσηρός* 'helper' from **ōsso-* which stands for **sok^h-iō-*, Lat. *soc-iu-s*, *✓seq-* 'be together with, follow'.

Aryan. In Skr. *-iō-* appears as a living participial suffix; e. g. *dṛś-ya-s* *dārś-īya-s* 'visible, worth seeing' *cēt-īya-s* 'perceptible'. Examples of substantival usage are: neut. *vāc-īya-m* *vāc-ya-m* 'speech, word', fem. *vid-yā* 'knowledge'. For the fluctuation between *-ya-* and *-īya-* see Edgren, *Journal of the Amer. Orient. Soc.* XI 74 ff.

Following a root ending in a short vowel the suffix assumes the form *-tīō-* instead of *-iō-*, as *kṛ-tya-s* 'faciendus' *kṛ-ty-am*

-i- = *-iō-* : *-iō-*), so that this form represents the weak-grade phase of the suffix which we are discussing, in the same way as *-i-* represents that of *-iē-* (§ 109). Streitberg is certainly right in laying especial stress on Gothic forms like *brūks un-nuts*. The form *-i-* arose through the *-i-* being added from cases which had *-iō-* *-iē-*. Just so we have in Lith. *jī-s jī* for **ī-s *ī* on the model of *jō* etc. Such forms as Lith. *mō-jī-s* are of the same kind as O.C.Sl. *ladi-jī* § 110 and Skr. *svadhā-yin-* § 115. Beside the Idg. stems formed with *-iō-* *-iē-* : *-i-* (*-iō-* *-iē-* : *-i-*) there probably existed from the pr. Idg. period onwards invariable *-iō-* stems which never had *-i-*. To these however we must not refer nominative forms like Skr. *yāj-y-as* Gr. *ᾱγ-ιο-ς* Lat. *exim-iu-s*, which were new formations (cp. Goth. *brūks*), and similarly Skr. *yā-s* Gr. *ῥ-* (cp. Lith. *ī-s*). I do not believe that the late Greek nouns ending *-ις* *-ις* instead of *-ιος* *-ιος* should be classed here as containing an original form of their suffix. They were created on the model of personal names belonging to the classical period, such as *Ἀλεξίς* *Ζεῦξίς* (cp. R. Wagner, *Quaestiones de epigrammatis Graecis*, Lips. 1883, p. 96).

'business' *kṛ-tyā* 'infliction, bewitchment', a new formation based upon such stems as *-kṛ-t-* 'faciens' (§ 123).

In Avest. *-ya-* is rarer, e. g. *dar's-ya-* 'visible', *vairya-* 'worth choosing or desiring', *išya-* 'desired, dear'.

Armenian. Here no doubt should be classed *li*, gen. *lioy*, 'full' from **plē-iō*.

Greek. *σύγ-ιo-ς* 'abominable, odious'. *πάγ-ιo-ς* 'established, firm, durable'. *σφάγ-ιo-ς* 'slaying, killing'. Substantival usage: *ἐρείη-ια* pl. 'ruins, debris', *σφάγ-ιo-ν* 'offering, victim for offering'.

Italic. Lat. *exim-iu-s* 'eximendus, exceptional, distinguished'. *in-fer-iu-s* 'presented, offered': cp. Avest. *bairya-* 'presenting'. Substantives: *frag-iu-m* 'breach, fracture', *stud-iu-m* 'zeal, eagerness, desire', *exuv-iae* pl. 'clothing, cast-off skin'.

Old Irish. Subst. fem. *in-sc-e* 'speech' ✓ *seq-*, neut. *suide* 'seat', ✓ *sed-*, *frecre* for **frith-gaire* (I § 514 Rem. 2 p. 376) 'answering, answer' ✓ *gar-*.

Germanic. Adjectives with the meaning of the fut. partic. pass. are commoner than in other European languages. Goth. *brūkja-* (nom. *brüks*) O.H.G. *prüchi* 'useful, serviceable'. Goth. *un-nutja-* (nom. *un-nuts*) 'useless' O.H.G. *nuzzi* A.S. *nyt* 'useful'. Goth. *un-qēþja-* (nom. *un-qēþs*) 'unutterable'. O.H.G. *gi-fuori* 'suitable, useful'. Here perhaps should be classed Goth. *havi*, 'gen. *háujis*, O.H.G. *hewi* n. 'hay' pr. Germ. **χαυ-ία* n. i. e. 'that which is to be cut'. Abstract nouns: neut. O.H.G. *gi-fuori* 'suitability, usefulness' compared with the adj. *gi-fuori*; Fem. A.S. *nyt* O.Icel. *nytr* 'use' compared with adj. A.S. *nyt*, Goth. *brak-ja* 'fight' (originally 'breach') with *brikan* 'to break'.

Balto-Slavonic.

In Lithuanian there are only a few adjectives; e. g. *sriau-ja-s* 'flowing swiftly', *žala-s žale-s* (Pruss. acc. *saligan* with *g = j*) 'green', properly 'being verdant', from *žél-ti* 'to be verdant'. The following may be adjectives used substantivally: *vė-ja-s* 'wind' ('he who blows'), *gaid-ỹ-s* 'cock' ('he who crows'), from *gėd-óti* 'crow', etc., all masculine. Forms formerly neuter used as substantives: *žōd-i-s* 'word' (cp. Skr. *vāc-ya-m*), *kañd-i-s* 'bite', *kiřt-i-s* 'cut or blow' with a cutting instrument (Skr. *kart-ya-*

'to be hewn or cut off') and other such forms; feminine forms used as substantives are *pradžīā* 'beginning' for **pra-d-iā* beside *pra-dē-ti* 'begin' (✓ *dhē-*), *žin-iā* 'knowledge' and others.

Slavonic. Adjectives which should no doubt be classed here are *lūšī* 'deceitful' for **lūg-ī*: O.H.G. *luggi lukki* O.Sax. *luggi* 'deceitful' pr. Germ. **luz-iā-*; also *věždī* 'knowing, aware' for **ved-ī* and other examples. Substantival usage: *lūža* 'lie' for **lūg-iā*: O.H.G. *lugi* 'lie' which implies a form **luz-iō*; *jažda* 'food, victuals' for **ed-iā*: Lat. *in-ed-ia* Skr. *ad-ya-s* 'eatable' O.Icel. *ætr* 'eatable' for **at-iā-z*; *sta-ja* 'position, standing-place, stall'; *dažda* 'gift' for **dād-iā* from the reduplicated form *da-d-* 'give'.

Remark 1. There is often room for doubt whether an *-iō-* form should be classed here, or whether it be a secondary formation (2). Thus, for example, Gr. *σπῆν-ις* may also have been formed from *σπῆν-η* 'a slaying, offering', O.H.G. *luggi lukki* from *lug m.* 'lie'. It should further be observed that the popular conception of the meaning of a word was very liable to change; a form which was originally primary might be regarded as a derivative, and *vice versa*. Thus e. g. Lat. *rēg-iu-s*, which the Romans certainly looked upon as derived from *rēx*, may very well have been primary to start with: cp. Skr. *rāj-iyā-s*, subst. *rāj-iyā-m*, beside *rāj-* 'king' and *rāj-ī rāj-a-ti* 'shines forth, is conspicuous, rules, governs'; the verbal stem from which *rēgiu-s* was originally derived died out in Latin, and thus the form was firmly established in the popular conception as a derivative of the noun *rēx*. Cp. Rem. 3 p. 132.

2. *-iō-* as a secondary suffix, forming adjectives which denote possession, origin, and other ways in which one thing may be connected with another. In these adjectives as well as in the former group the neuter and the feminine were often used as substantives with abstract meaning, and then *-iō-m* and *-iā-* were taken to form substantives of this kind even where there was no corresponding adjective in *-iō-*.

It is specially important to notice that in compounds with epithetised meaning, the so-called *bahuvrīhi* (§ 50), and also in adjectival compounds containing a governing preposition (§ 15 p. 30 f.), *-iō-* is often the sign of the adjectival character of the word; e. g. Gr. *ὁμο-πάτρ-ις* beside *ὁμο-πάτωρ* 'from the same father', Skr. *ánv-antr-ya-s* 'situated in the intestines'.

Id g. **patr-iō-s* 'belonging to a father' from **pater-* 'father':

Skr. *pūriya-s* Gr. *πάτριος* Lat. *patriu-s*. When the suffix was added to *o-* and *ā-*stems, the final vowel of the stem was dropped (cp. Rem. 3 p. 132); examples are **ekū-iō-s* 'equinus' from **ekūo-* 'equus': Skr. *āsviya-s* Gr. *ἰππιος*; **agr-iō-s* 'situated in the fields' from **agr-o-* 'field': Skr. *qjriya-s* Gr. *ἄγριος* ('wild').

Substantives: Skr. *svāpn̄ya-m* Lat. *somniū-m* O.C.Sl. *sūn̄tje sūn̄ije* 'dream' beside Skr. *svāpn̄a-s* Lat. *somnu-s* O.C.Sl. *sūnū* 'sleep'. **gh̄n̄t-iā* 'a slaying' seems to be an Idg. fem. of this kind; Skr. *hatya* 'killing' O.Sax. *gūdea* 'fight' Lith. *gincziā* 'strife', beside the part. pass. **gh̄n̄-tó-* (Skr. *hatā-*) 'struck, slain'.

In adjectival compounds: Skr. *dāśa-mās-īya-* Avest. *dasa-māh-ya-* 'lasting for ten months' (beside Gr. *δεκά-μηρος*), Skr. *ūpa-mās-ya-* 'monthly', Gr. *ἐμ-μῆν-ιος* (beside *ἐμ-μηρος*) 'running its course in a month' *ἐπι-μῆν-ιος* 'calculated for a month, lasting for a month'; Gr. *ὁμο-πάτρ-ιος* O.Icel. *sam-feðr* 'from the same father' (compare O.Pers. *hama-pitar-* Gr. *ὁμο-πάτωρ*).

Aryan. Skr. *gāv-ya-* Avest. *gao-ya-* 'bovinus' from *gav-* 'bos': Armen. *kog-i* 'butter' (see below). Skr. *śravas-īya-* 'glorious' from *śrāvas-* 'glory' Avest. *manah-ya-* 'spiritual, invisible' from *manah-* 'spirit': cp. Gr. *τέλειος τέλος* 'complete, having reached its end' for **τελειο-ος* beside *τέλος* n. 'end, goal'. Skr. *mārt-īya-* Avest. *maš-īya-* O.Pers. *mart-īya-* 'mortal, a man' beside Skr. *mārta-s* 'a mortal, man': cp. Gr. *ἄμβροσ-ιος* 'immortal' (I § 120 p. 112). Skr. *bhēṣaj-yā-*¹⁾ Avest. *baēšaz-ya-* 'containing healing power, medicinal' from *bhēṣaj-ā-m* *baēšaz-e-m* 'healing power, medicine'. Skr. *grām-iyā-* 'belonging to a village' from *grāma-s* 'village, small community', *kṣatr-īya-* 'holding lordship, lord' from *kṣatrā-m* 'lordship', *sēn-īya-* 'provided with missiles' from *sēnā* 'missile'.

The group of participles in *-tav-ya-* was a new formation in Sanskrit, which did not become at all common until the post-

1) For typographical reasons the *svarita* accent is represented in this volume by the sign of the grave accent, and not as it was in vol. I p. 539.

Vedic period: e. g. *kar-tav-yā-* 'faciendus' from the *nomen actionis* *kār-tu-*.

Substantives. Neut. Skr. *kṣatr-īya-m* 'lordship, sovereign might', *dūt-īya-m* 'message, duty of a messenger' (*dūtā-s* 'messenger'), Avest. *sāsn-ya-* 'announcement, dictate, command' (*sāсна-* 'word, announcement'). Fem. Skr. *pād-yā* 'footstep' (*pād-ya-* 'relating to the foot')¹⁾, *śarav-īyā* 'bowshot' (beside *śarav-yā-m* 'goal of the arrow', from *śāru-ṣ* 'arrow').

In adjectival compounds the suffix is rare. Skr. *su-hást-īya-* (beside *su-hástā-*) 'with beautiful hands' *mádhu-hast-īya-* 'holding sweetness in the hand' *ádhi-gart-īya-* 'situated on the driver's seat', Avest. *dēušmanah-ya-* 'cherishing evil sentiments, evil-doer' (cp. Skr. *dur-manas-* Gr. *δυσ-μενής*).

Armenian. This suffix appears to be contained in the nouns in *-i*. *kog-i* 'butter' ('coming from the cow') with *g* for *μ* (I § 162, 2 p. 145) from *kov* 'cow': Skr. *gáv-ya-*. To this group no doubt belong the further examples *gin-i* 'wine', i. e. 'that which comes from the grape' (cp. Gr. *οἶνο-ς* Lat. *vīnum*; for the suffix cp. Lith. *ap-vy-n-ỹ-s* 'hops'), *orj-i* 'not castrated' *mi-orj-i* 'μόνορχις' from *orj* 'male', etc.

Greek. *νά-ιο-ς νή-ιο-ς* 'belonging to a ship', from *ναῦ-ς* 'ship': Skr. *nāv-īya-* 'navigable'. *δῖο-ς* 'heavenly, glorious' for **δι-ιο-ς* from *Δι-:* Skr. *div-yā-s* 'heavenly'. *πεζό-ς* 'going on foot' for **πεδ-ιο-ς* beside *ποῦς ποδ-ός* 'foot': Skr. *pād-ya-s* 'relating to the foot'. *ἡοῖο-ς* 'early, eastern' for **οσ-ιο-ς*, from *ῥώς* 'rosy dawn': Skr. *uśas-ya-s* 'dedicated to the dawn'. *γομφ-ίο-ς* 'molar tooth' (orig. an adj. joined with *ὀδούς*) from *γόμφο-ς* 'plug, peg': cp. Skr. *jāmbhya-s* 'molar tooth' or 'incisor tooth' from *jāmbha-s* 'bite'. Lesb. *χέλλιοι* Ion. Att. *χέλιοι* (*χῆλιοι*) 'thousand' for **χεςλ-ιοι* from **χεςλο-* (cp. *δεκά-χῆλιοι*): Skr. *sa-hasr-īya-s* 'thousandfold' from *sa-hásra-m* 'thousand'; parallel to this is Dor. *-κατ-ιοι* Arcad. *-κασ-ιοι* in *διᾱ-κάτιοι* 'two hundred' from *ἐ-κατό-ν* 'hundred'.

2) With this Gr. *πέζα* 'bottom, extremity, edge, border' is usually compared. Perhaps we should assume the existence of an original subst. **ped-iā*.

σωτήρ-ιο-ς 'saving, delivering' from σωτήρ 'saviour'. λειμών-ιο-ς 'belonging to the meadows' from λειμών 'meadow'. Ion. (and other dial.) βασιλή(F)-ιο-ς 'kingly' from βασιλεύς 'king' and the like (Att. -ειο-), whence the ending -ηιο-ς spread to other stems, e. g. ἀνδρ-ήιο-ς, πολεμ-ήιο-ς. τίμ-ιο-ς 'held in honour' from τίμη 'honour'.

Remark 2. There remain certain groups of nouns, ending in -αιο-; -οιο-ς -ειο-ς, and retaining the ι (e. g. δίκαιο-ς, ἀλλοιο-ς, οἰκείο-ς), which occur in several extensive classes of formations; but their origin and developement is still in many respects obscure, in spite of many attempts to investigate the subject thoroughly (see p. 122 footnote 1). They cannot be directly connected with Sanskrit forms like *hiraṇyá-ya-s* 'golden' from *hiraṇyá-m* 'gold', *gavyá-ya-s* 'bovinus' from *gavyá-m* 'bovinum', nor with Lith. *vasaró-jī-s* 'field sown with spring-corn' from *vasarà* 'summer'. ἀλλοιο-ς etc. may well have been formed on the analogy of ποιο-ς τοιο-ς, which probably arose from -οι-ιο-ς. Thus -αιο- -ειο- (the latter only in some words) perhaps, go back to -αι-ιο- -ει-ιο-. Have they any connexion with Skr. -ṛya-?

Substantives. Θελκτήρ-ιο-ν 'delight, magic charm' from Θελκτήρ-ιο-ς 'enchanting' Θελκτήρ 'charmer' αἰδοῖο-ν 'pudendum' from αἰδοῖο-ς 'he before whom one feels shame', αἰδώς 'shame, modesty'. After the time of Homer neuter forms like these often assumed a diminutival meaning, as ὄρνιθ-ιο-ν 'little bird', ἑταιρίδ-ιο-ν 'little mistress', ἀσπίδ-ιο-ν 'little shield' (hence -ιδιο-ν broke off as an independent suffix: ἀδελφ-ιδιο-ν 'little brother' ξιφ-ιδιο-ν 'little sword'); the intermediate stage between these two meanings was that of belonging to a kind; cp. the suffix -ῖνο- in Germanic (§ 68). σωτηρ-ιά 'deliverance' from σωτήρ-ιο-ς. ξεν-ία 'hospitality' from ξέν-ιο-ς 'hospitable'. ἡσυχ-ιά 'quietude' from ἡσυχ-ιο-ς 'quiet'. The endings mentioned in Remark 2 were also used in the same way in substantives; e. g. Ion. ἀναγκαίη 'necessity' from ἀναγκαῖο-ς 'necessary' (compare ἀνάγκη 'necessity').

Adjectival compounds: ἐννεά-βο-ιο-ς 'worth nine oxen', παν-ημέρ-ιο-ς (beside παν-ήμερο-ς) 'lasting the whole day', ψευδ-όρκ-ιο-ς (and ψεύδ-ορκο-ς) 'forsworn'. Where the compound contains a preposition which, in sense, governs the latter part, -ιο- is fairly regular; e. g. ὑπ-ασπίδ-ιο-ς 'situated under a shield', παρα-θαλάσσι-ο-ς 'situated near the sea' (§ 31 p. 53).

Italic. Lat. *Jov-iu-s* 'belonging to Juppiter' Umbr. *Iov-iu* abl. 'Jovio' Osc. *Iúv-ia* 'Joviam'. Lat. *cēnsōr-iu-s* from *cēnsor*. *praecōn-iu-s* from *praecō*. *lucr-iu-s* from *lucru-m*. *nox-iu-s* from *noxa*.

Substantives. Lat. *augur-iu-m* beside *augur-iu-s* from *augur*, *dēversōr-iu-m* beside *dēversōr-iu-s* from *dēversor*, *hērēd-iu-m* from *hērēs* (stem. *hērēd-*), *collēg-iu-m* from *collēga*. *nox-ia* beside *nox-iu-s* from *noxa*, *custōd-ia* from *custōs* (stem *custōd-*), *famil-ia* Umbr. *famer-ias* nom. 'familiae' beside Lat. *famulu-s*; Osc. *medikk-iaī* loc. of *medikk-iā-* 'function of a *medix*' (cp. Lat. *vindic-ia* from *vindex*).

Adjectival compounds. Lat. *acu-ped-iu-s* 'swiftfooted', *falci-ped-iu-s*: cp. A.S. *ān-fēte* 'one-footed' (cp. below under Germanic); *falsi-jūr-iu-s*; *centi-nōd-iu-s*; *in-vīn-iu-s*. Where there was a governing preposition, other adjectival suffixes were generally employed, cp. *ante-lūc-ānus-*, *extra-ordin-āriu-s* and similar compounds.

Old Irish. Besides the adjectives in *-de -te*, which shew an extension of the suffix (as *dal-te* 'forensis' from *dal* 'forum', *daur-de* 'quernus' from *daur* 'quercus'), it can hardly be said that any derived adjectives remain which are formed simply with *-iō-*. But many of the substantives connected with these adjectives have been preserved; e. g. *auē ōa* 'grandson' = O.C.Sl. *u-jǣ* Pruss. *awi-s* 'uncle', beside Lat. *avo-s* 'grandfather'. Neut. *orbe orpe* 'inheritance, heritage' = Goth. *arbi* 'heritage', common ground-form **orbh-iō-m* (I § 139 p. 124 f., § 335 p. 267, § 524 p. 380), beside Armen. *orb* 'orphan' Lat. *orbu-s* 'set free, bereft, orphaned' (the original meaning therefore of the Irish and German word was probably 'something, i. e. property, bereft, left behind'), *cenēle* 'genus' from *cenēl* 'genus' (cp. Gr. *ἐνναῖον ἐνναῖα* beside *ἐννή* 'couch', *ἀνάγκη* beside *ἀνάγκη* 'necessity', *οἰκίον οἰκία* beside *οἶκος* 'house', O.C.Sl. *ognište* n. 'fireplace, hearth' for **isk-je* beside Pol. *ognisko* n., and the like). Fem. *lāne* 'plenitudo' from *lān* 'plenus', *ōge* 'integritas' from *ōg* 'integer', *galarche* 'aegritudo' from *galrach* 'aeger'.

Cp. also Gallic proper names like *Cintugnāt-iu-s* beside *Cintugnātu-s*, *Tout-iu-s* beside *Toutu-s* (cp. Gr. *Ἀρριγένης-ιο-ς*, *Τελαμών-ιο-ς*).

Germanic. In the adjectival use it is no longer a living suffix, its place having been taken by *-ina-* *-za-* etc.; but it is frequently retained in substantives. Goth. *niþ-jī-s* 'cousin, kinsman' O.Icel. *nið-jar* pl. 'descendants, offspring' A.S. *niddas* pl. 'men' for **ne(p)t-iō-* (I § 527 p. 382) beside O.H.G. *nefo* 'nephew, kinsman', Idg. stem (in the weak form) **nept-*: Avest. *napt-īya-* 'kinsman', Gr. *ἀνεψ-ιό-ς* O.C.Sl. *net-ijŭ* 'first cousin'. Goth. *hattrdeis* O.H.G. *hirti* 'herdsman' ('he who belongs to the herd') pr. Germ. **xirā-iā-*, beside Goth. *hairda* O.H.G. *herta* 'herd'. Goth. *guþblōstr-ei-s* 'offerer' beside O.H.G. *bluostar* 'offering'. O.H.G. *ouwa* O.Icel. *ey* (pl. *eyjar*) 'marshy land, island' ('watery' f. scil. 'earth', cp. Gr. *πολεμιά* 'enemy's land') for **a(z)u-iō* (I § 444 c p. 330), beside Goth. *ahva* O.H.G. *aha* 'water'.

Neuter and feminine forms used as substantives. Goth. *reik-i* O.H.G. *rihh-i* n. 'realm, lordship' beside Goth. *reik-s* 'lord, ruler': Skr. *rāj-iyā-m*, yet cp. Rem. 1 p. 125. Goth. *andbaht-i* n. 'service' from *andbahts* 'servant', *þiub-i* n. 'theft' from *þiufts* 'thief'. Goth. *háuhisti* n. 'the highest height' from *háuhistis* 'highest': cp. Skr. *jyātiṣṭh-ya-m* 'highest power' from *jyēṣṭha-s* 'most powerful'; Goth. *unhāili* n. 'illness' from *unhāils* 'ill'. O.H.G. *diub-(i)a* f. 'theft' beside Goth. *þiubi* n. Goth. *ga-riud-jō* f. 'shame' (transferred to the *n*-decl.), beside *ga-riud-i* n., from *ga-riuþs* 'modest, chaste'.

It is probable that some of the adjectival compounds of West-Germanic (and Norse) like O.H.G. *heiz-muot-i* 'hot-tempered, passionate' *lang-lib-i* 'longaevus' are old *iō*-stems (cp. Kluge, Nom. Stammb. p. 77. 104). We must certainly class here Goth. *uf-aiþ-ei-s* 'under an oath, bound by oath', and the Goth. substantival neuter forms *fāura-daūri* 'that which is before the door, street' *anda-naht-i* 'the time close on night'.

Balto-Slavonic. In Lithuanian the suffix is no longer in use to form adjectives; but it often occurs in groups of compounded suffixes, as *-ln-i-s* (*med-ln-i-s* 'wooden').

Masculine forms used as substantives. *arkl-ŷ-s* 'horse' from *árkla-s* 'plough'. To this class also belong *musū-ji-s* 'he who is ours' from gen. *músū* 'our' (cp. O.C.Sl. *naši* 'our' for **nas-ŷ* beside the gen. *nasū*), *Prūsaičziū-ji-s* 'he who belongs to the family *Prūsaičziai*', and the like.

Some masc. forms are derived from substantival neuters: *iļg-i-s* 'length' from *iļga-s* 'long', *szalīt-i-s* 'coldness' from *szālta-s* 'cold' etc. (cp. the Slavonic below).

This -io- appears in adjectival and indeed in most other compounds; e. g. *tri-rāž-i-s* 'three-pronged' from *rāža-s* 'prong', *minkszt-galv-i-s* 'soft-headed' i. e. 'weak-headed' from *galvā* 'head', *apj-vakar-i-s* 'the time towards evening' (an adj. used as a subst.). The general practice of forming compounds with -io- may have sprung from this group of words.

In Slavonic it is still living as an adjectival formative suffix (-je- = orig. -io- and -ije- -ije- = orig. -ijo-, I § 36 p. 37), forming adjectives from the names of living beings, e. g. *materi* 'motherly' from *mati*, *člověči* 'human' from *člověku*, *ověči* and *ověčiji* *ověčiji* 'ovium' from *ověca*, *synovli* 'filii' (for the *l* see I § 147 p. 132) from *synū* (*synov-*, cp. Skr. *iṣav-yā-* 'relating to an arrow' from *iṣu-*, Gr. *ἀστείο-ς* for **φαστεf-ιο-ς* 'town-like' from *ἄστυ*), *bož-iji* *bož-iji* 'divine' from *bogū*, *děviji* *děviji* 'maidenly' from *děva*.

Neuter forms used as substantives: *ostrije* 'sharpness' from *ostrū* 'sharp', *lakomije* 'greediness' from *lakomū* 'covetous, greedy' (cp. Lith. *iļgi-s* and the like), *polizije* 'usefulness, use' from *poliza* 'useful', *znamenije* 'designation, mark, token' from *zname* 'mark, token' and (with collective meaning) *kamenije* 'stone-work, stones' from *kamy* 'stone', *dražije* 'timber-work, beams' from *dragū* 'beam', and so forth. Feminine forms: *suša* 'dryness' from *suchū* 'dry', *arožda* 'folly' from *arodū* 'foolish', *bratrīja* *bratīja* 'brotherhood, brothers' (cp. Gr. *φρᾶτριᾶ*). In all these instances the adjectives from which the substantives came have fallen out of use.

Only isolated examples of adjectival compounds have this suffix; e. g. *bez-otiči* 'without a father, fatherless' (*otiči* 'father')

bez-umlī 'without sense, unintelligent' (*umū* 'sense') like Lith. *be-tēvis be-prōti-s*.

Remark 3. The fact that in many cases we cannot tell whether *-iō-* is primary or secondary (see Rem. 1) naturally suggests the question, whether its use as a secondary suffix may not be wholly due to a relation accidentally established between *iō*-formations which originally were primary, and nouns containing the same root, as for instance between **rēḡ-iō-* and **rēḡ-* 'ruler, king'. In this case it would be questionable whether the disappearance of the *-o-* and *-ā-* of the stem was a real phonetic process, or whether, which is far more probable, some originally primary formation, e. g. **jug-iō-* ($\sqrt{\text{jeug}}$ 'yoke to, unite') was brought into connexion with a noun like **jugó-m* 'yoke', and that this alone caused the apparent loss of the stem-final wherever it takes place. Such instances as Skr. *bhuraṇ-yā-ti* 'he is active' derived from *bhuraṇa-* 'active', Gr. *μελίσσω* for **μελῦχ-ω* from *μελῦχο-* must also, no doubt, be taken into account. I must content myself here with directing attention to these questions, which are still unsettled. — On these points the student may now be referred also to Windisch, *Über die Verbalformen mit dem Character R*, p. 55 f.

3. There are some adjectives in which *-iō-* appears to have had a comparative meaning (cp. superl. **medh-ḡmo-s* § 72 beside **medh-iō-s* 'medius'), so that *-ies-* *-is-* (e. g. in Skr. compar. *nāv-yas-* superl. *nāv-iṣ-ṭha-*, § 81. 135) may be regarded as an extension of *-iō-* by an *s*-suffix.

**al-iō-s* 'alius': Armen. *ail*, Gr. *ἄλλο-ς* Lat. *aliu-s* O.Ir. *aile* Goth. *alji-s*; cp. Ar. **an-iā-* 'alius' (Skr. *anyā-* Avest. *anya-* O.Pers. *aniya-*), which is derived from another root but is similarly formed. **medh-iō-s* 'medius': Skr. *mādhyā-s* 'medius', Armen. *mēj*, gen. *mijoy*, 'midst', Gr. *μέσσο-ς μέσο-ς*, Lat. *mediu-s*, Gall. *Medio-matrici*, O.C.Sl. fem. used substantivally *meždu* 'boundary' for **medīā* (cp. O.Sax. *middeu* O.Icel. *miðja* — a weak fem. — 'midst'). **neṽ-iō-* beside **neṽ-o-s* 'new, young' (cp. Skr. *nū*, Gr. *νῆ* etc.): Skr. *nāvya-s*, O.Ir. *nūe* (Gall. *Norio-dānu-m*), Goth. *niunji-s*, Lith. *naūja-s*. Skr. *sav-yā-s* O.C.Sl. *šu-jī* 'left' (cp. I § 185 p. 161). Gr. *δεξιό-ς* 'right'.

Certain possessive pronouns with *-iō-* should be placed in this group; e. g. Lat. *meu-s* for **me-iō-s* (I § 134 p. 121) Pruss. *mais* (stem *ma-ia-*) O.C.Sl. *mo-jī* 'my', Osc. *tium* 'tu' Umbr. *tiu tiom* 'te', properly 'tuum', Pruss. *tuais*

(stem *twa-ia-*) O.C.Sl. *tvo-jŭ* 'thy', and further Skr. *mad-īya-s* 'my' *tad-īya-s* 'his, eius'. Then e. g. **me-jo-* would be related to **mo-* (Avest. *ma-* Gr. *ἐμός-*) as Gr. *ἐμέ-τερος* to *ἐμός-*.

We should also include certain ordinal numerals with *-jo-*. Skr. *pūrv-iyā- pūrv-īya-* 'previous, first', Avest. *pavirya-* 'first', Gr. *πρώην* 'lately' for **πρω-ιά-ν* (I § 306 p. 242). Skr. *dvit-īya-* Avest. *bit-ya-* 'second'. Skr. *tṛt-īya-* Avest. *br̥it-ya-* Lat. *tert-iu-s* Goth. *þrid-ja-n-* Lith. *trėczia-s* for **tret-ia-s* O.C.Sl. *tret-ŷŭ* 'third' beside Gr. *τρίτο-ς*. Skr. *túr-ya-* *tur-īya-* Avest. *tuirya-* 'fourth' for **ktur-* (I § 471 p. 343).

This third function of the suffix *-jo-* appears also in active use in some of the separate Indo-Germanic languages. E. g. Goth. *fairneis* O.H.G. *firni* 'old' and Goth. *alþeis* 'old' may have been formed on the model of *niuji-s*.

§ 64. The Suffix -yo- -yā-, -uyo- -uyā-. This is both primary and secondary; it is found in substantives and adjectives, but no special meaning can be assigned to it. In Latin and German we must notice its frequent use in forming adjectives to denote colour, a function it acquired simply by analogical extension. In these and in some other languages -yo- appears still as a living suffix.

Idg. **ek-yo-s* 'horse', fem. **ek-yā* (often referred to Skr. *āś-ú-ṣ* Gr. *ὤξ-ύ-ς* 'swift' Lat. *acu-pediū-s*, but it is difficult to reconcile the vocalism): Skr. *dśva-s āśva-*, Gr. *ἵππος* (the fem. perhaps survives in *Ἰνπηρ-μολγοί* 'milkers of mares'), Lat. *equo-s equa*, O.Ir. *ech*, Goth. *aiþva-* seen in *aiþva- tundi* 'βάτος', Lith. *asvā*. **gē-yó-* 'living' (✓ *gei-* 'to be astir, to live'): Skr. *jīvá-* Lat. *vīvo-s* Mod.Cymr. *byw* Goth. *giu-s* (stem *qiva-*) Lith. *gýva-s* O.C.Sl. *živŭ*. **vidheyo- -eyā-* beside Skr. *vidh-* 'become empty, lack': Skr. *vidhāva-s* 'unmarried' *vidhāva* 'widow', Gr. *ἡθρο-ς* 'unmarried' (the explanation of the *ἡ-* is doubtful; see Wheeler, Der griech. Nominalacc. 110), Lat. *viduo-s vidua*, O.Ir. *fedb* Mod.Cymr. *gweddwo* (I § 174 p. 154) Goth. *viduvō* (*n*-stem) O.C.Sl. *vidova* 'widow'; the word should no doubt be analysed **vidhe-yo-* and compared with words like Skr. *yaj-a-tá-s darś-*

-a-tā-s Gr. ἑρπ-ε-τόν λάχ-ε-σι-ς, containing the -e- of thematic verbal stems (§ 79. 100), cp. Lat. *vac-uo-s* etc. below.

-uo- occurs as a secondary suffix in **pōtṛ-uo-* **pōtṛ-uo-* and **pōtṛ-u-īo-* (a derivative form with -īo-) 'father's brother, uncle': Skr. *pītrvya-* Gr. (Ion. Cret.) πάτως for **πατω-fo-ς* (ω- = *-f-*, I § 306 p. 241 f.) Lat. *patruo-s* O.H.G. *fetiro* and *fatureo* (**faðuruiā-n-*); for the Avest. *tūirya-* see Bartholomae, Bezzenberger's Beitr. X 271 f.

In the form -uuo-. Skr. *dhr-uvā-* 'firm' beside O.C.Sl. *sū-dravŭ zdravŭ* 'sound, healthy' for *-*dor-vŭ*.

Aryan. Skr. *viś-va-* Avest. O.Pers. *vīspa-* (I § 159 p. 142) 'all' (in Skr. it also means 'containing or pervading all'), beside Skr. *viś-* 'enter, penetrate, take possession of' (orig. 'completely filled' or 'filling', cp. Skr. *śa-śvant-* Gr. *πᾶς* § 126). Skr. *ṛk-vā-* 'praising'. Skr. *pak-vā-* 'ripe' (from *pac-* 'to cook'). We have already noticed that Skr. *dhruvā-* 'firm' should be classed here, i. e. *dhr-uvā-* with the dissyllabic form of the suffix, cp. O.C.Sl. *sū-dravŭ-* 'sound, healthy' for *-*dor-vŭ*¹).

The suffix is also denominative in some instances; e. g. Skr. *kṣā-vā-s* 'long-haired' from *kṣā-s* 'hair', *rāsna-vā-s* 'provided with a girdle' from *rāsna-* 'girdle', *añji-vā-s* 'slippery, smooth' from *añji-ś* 'unguent', *rājī-vā-s* 'striped' from *rājī-* 'stripe'.

In some cases it is doubtful whether the suffix is primary or denominative: Skr. *pūr-va-s* 'former, earlier' Avest. *pourva-* O.Pers. *parūva-* (read *parva-*) 'earlier': Gr. **πρω-fo-* seen in Dor. *πρᾶν* 'formerly' for **πρω-ḑ-v* and in *πρᾶτο-ς* Dor. *πρᾶτο-ς* 'first' for **πρω-ḑ-ατο-ς* (I § 306 p. 242), O.C.Sl. *prŭ-vy-jŭ* 'first'. Similarly Avest. *aē-va-* O.Pers. *ai-va-* 'unus': Gr. *οἶ-fo-ς* *οἶο-ς* 'alone', cp. **οἶ-no-* in Lat. *oino-s* *anu-s* etc.

Armenian. *kea-*, seen in *kea-nk̄* (gen. *ken-aç*) 'life' and other words, seems to have been developed from **kiva-* and accordingly to belong to the stem **gī-uo-* (see above). Compare Hübschmann, Armen. St. I 35.

1) Elsewhere -*uva-* for -*va-* in the Rig-Veda is 'a sporadic and doubtful exception'. See Edgren, Journ. of the Amer. Orient. Soc. XI 82.

Greek. ὀρθός 'upright' for *ὀρθ-*fo-s*: Skr. *ūrdhvá-s* 'upright', Lat. *arduo-s*, O.Ir. *ard* (*ardd art*) 'high, great, noble'; with which we may compare *Arduenna silva*, Idg. **ǵdh-uo-s*. *κόρ-fā* (in Thessal. ? inscr.), Ion. *κούρη* Dor. *κώρā* Att. *κόρη* 'girl' (I § 166 p. 146 f.). *λαί-(f)ός-s* 'left': Lat. *laevo-s* O.C.Sl. *lěvŭ* 'left'; compare no doubt Germ. **slai-ua-z* 'weary, weak, dull, slow' (O.H.G. *slēo* A.S. *slaw* O.Icel. *sljör*), so that this word for 'left' would represent the opposite of the universal Indo-Germanic word for 'right', Skr. *dákṣiṇa-* Gr. *δεξιός* etc., in as much as the original meaning of the latter involved the notion of strength, ability, or cleverness, as is shewn by the Skr. *dákṣa-* 'strong, able, skilful'. **κεν-fός-s* 'empty' Lesb. *κέννος* Ion. *κεινό-s* Att. *κενός*¹⁾; the by-form *κενε-fός-s*, represented by Cyp. *κενεufón* Ion. *κενεός-s*, is parallel to *ίε-ρός* beside *ἱ-ρός*, and similar pairs of forms.

-*fo-* as a secondary suffix is no doubt to be traced in verbal adjectives ending in -*τίο-s*, which stands for *-*τε-f-o-s*, as *διωκτέο-s* 'to be pursued', and in adjectives in -*αλέο-s*, standing for -*αλε-f-o-s*, as *ῥωγαλέο-s* 'fragmentary, torn': these are based on stems in -*το-* and -*αλο-*.

Remark 1. Hesiod's *φατειός-s* either represents an extended stem formed with -*ίο-*, *-*τε-f-ίο-s*, or (which seems to me less likely) is a later corruption of a true Hesiodic form *φατενός-s*.

The Skr. accent in *kéṣa-vā* etc. (see above) suggests the conjecture that -*τίο-s* in dactylic words came from *-*τεός* (cp. I § 676 p. 542 f.), and that -*αλεο-s* afterwards conformed to the same type.

-*fo-* as a secondary suffix is perhaps also to be recognised in *ἴσο-s* Cret. *ῑίσφο-s* 'equal', since the word may be referred to **uit-s-*, a weak form of the stem of **meid-es- εἶδος* (cp. § 132); the pr. Gr. form will then have been **φιτσο-f-o-s*, cp. Umbr. *mersuva* from **med-(e)s-* cited below. *ἴσος* has already been connected with *εἶδομαι* by Bechtel, *Philolog. Anzeiger* 1886 p. 15, who also gives the pr. Gr. form as **φιδσφο-s*, but suggests no satisfactory explanation of the *σ*.

1) In the Att. *κενότερος κενότατος* the use of *ο* instead of *ω* (contrast *σποώτερος*) is a reminiscence of the older form **κενφο-s*. Cp. § 75.

Here too we should no doubt class ξένφο-ς 'strange, foreign' Ion. ξείνο-ς Att. ξένο-ς (I § 166 p. 146); yet it is not clear whether *-fo-* is primary or secondary.

Italic. Lat. *ar-vo-m*, Umbr. *arvam-en* 'in arvom': Mod.Cymr. *er-w* 'cultivated land' Bret. *er-v* 'furrow'. Lat. *sal-vo-s*, Umbr. *salvom saluom* 'salvum' *salvam* 'salvam': compare Skr. *sár-va-s* Gr. οὔλο-ς ὅλο-ς (*όλ-fo-ς) 'all, whole'. Lat. *vī-vo-s* Osc. *bivus nom.* 'vivi': Skr. *jī-vá-s* etc., see p. 133 above. Lat. *cal-vo-s*: Skr. *kul-va-s* 'bald'. Lat. *scae-vo-s*: Gr. σκαι-(f)ό-ς 'left', and add O.Icel. *skeika* 'go awry, go wrong' (**skaikō-* for **skaikūā-*, see S. Bugge, Paul-Br. Beitr. XIII 515). In words denoting colours: *hel-vo-s*: O.H.G. *gelo* 'yellow', common ground-form **ghel-uo-s*; *gil-vo-s*, *ful-vo-s*, *flā-vo-s* (for **bhl̥-uo-s*, compare O.H.G. *blao* 'blue'?), *rā-vo-s*, *fur-vo-s* (I § 569 p. 426). Such forms as *vacuo-s*, *nocuo-s*, *perspicuo-s*, *assiduo-s* may be of the same kind as *viduo-s*; *vacuo-s*, for instance, will then have come from **vace-uo-s*, the intermediate stage being **vacouo-s* (I § 65 p. 52).

The suffix is secondary in *Minerva* for **menes-uā* beside Skr. *mānas-* Gr. μένεις- n. 'mind, sense' (cp. Skr. *manas-vin-* 'having sense, intelligent'); Umbr. *mersuva abl.* 'solita' for **meřs-uā(d)*, i. e. **med(e)s-uo-* from *meř-s* 'ius'. Also in Lat. *annuo-s* from *annu-s*, *strēnuo-s* beside Gr. στρεῖνο-ς 'strength', *cernuo-s* from **cerno-* (or **cernā-*) for **cers-no-* 'head', cp. Gr. κράννᾱ κρήνη (ἀμφι-κρανο-ς) for **κραῖσ-uā*; here too we should probably place the examples of *-uo-s* from **e-uo-s*, cp. Skr. *kṛṣā-vā-s* Gr. διακτέ-(f)ο-ς.

Remark 2. Do the adjectives in *-ivo-s*, as *captivo-s* *furtivo-s* *sēmentivo-s* *nocivo-s* *cadivo-s*, come from feminine forms in *-i-* (cp. Skr. *rāji-vā-s*), or from derivative verbs in *-ire* (**nocire*), like Lith. *daly-vā-s* from *daly-ti*, Slav. *chodi-vū* from *choditi* (see below)? In either case there must have been a change of usage, from the primary to the denominative or *vice versa*.

Old Irish. *tar-b* Gall. *tar-vo-s* Mod.Cymr. *tar-w* 'ox', usually compared with Gr. ταῦρο-ς, which is said to stand for **taq-fo-ς* (I § 639 p. 479). *mar-b* Mod.Cymr. *mar-w* 'dead', compared with √*mer-* 'die' (cp. Rem. 3).

Remark 3. Osthoff regards *marb* as modelled on the form of its opposite **gī-uo-s*, O.Ir. *biu beo* Mod.Cymr. *dyw*, whilst Bréal (Mém. de la Soc. de lingu. VI 127) holds that even the Lat.-Slav. **mrtuo-* 'dead' (Lat. *mortuo-s* O.C.Sl. *mr̥tū*) was originally **mrtō-* and that it was altered on the same analogy. This seems to me not unlikely; and I would also suggest that possibly the Kelt.-Germ. **deks-uo-* 'dexter' (O.Ir. *dess* O.Cymr. *dehou*, Goth. *tathsa*) may owe its suffix to one of the two words for the opposite idea, **lai-uo-* **skai-uo-* (see pp. 135, 136) (cp. Gr. *δεξιτερός-ς* on the analogy of *ἀριστερός-ς*, late Lat. *senexter* instead of *sinister* on the analogy of *dexter*, and many similar examples, Ber. der sächs. Gesellsch. der Wiss., 1883, p. 191 f.)

Germanic. Goth. *hlái-v* n. O.H.G. *hlēo*, gen. *hlēwes*, 'grave-mound' ground-form **kloi-uo-*: Lat. *clī-vo-s*, √ *klei-* 'lean, incline'. A.S. *earo* O.Icel. *qrr* 'swift' from which Finn. *arvas* is borrowed: cp. Skr. *ár-van-* 'hasting, swift'. O.H.G. *rāwa ruowa* 'quietude, rest' pr. Germ. **rē-uo-* **rō-uo-*: Gr. *ἐρω-(f)ή* 'letting loose, cessation, rest'. Words denoting colour; O.H.G. *gelo*: Lat. *helvo-s*, O.H.G. *salo* 'black, dirty', O.H.G. *blāo* 'blue' (compare Lat. *flavo-s*?), A.S. *baso* 'purple' etc. (Kluge, Nom. Stammb. 81).

Balto-Slavonic. Lith. *pỹ-va-s* 'beer' O.C.Sl. *pi-vo* 'draught, intoxicating drink', compared with *pī-* 'to drink' (O.C.Sl. *pi-ti* 'to drink' Skr. *pī-ti-* *ṣ* 'draught' Gr. *πί-νω* 'I drink' etc.); and since this is no doubt identical with *pī-* 'swell, be fat' (Osthoff, Morph. Unt. IV 41. 167), the word must be closely related to Skr. *pī-va-s* Gr. *πί-(f)ος* 'fat'. Lith. *pal̃-va-s* O.C.Sl. *pla-vũ* 'yellowish white, tawny' (it is possible that the Lith. word was borrowed from the Slav.): O.H.G. *falo* 'fallow, tawny'. Pruss. *sy-va-* O.C.Sl. *si-vũ* 'gray': related to Skr. *śya-va-* 'dark brown'. Pruss. *pel-vo* O.C.Sl. *plē-va* 'chaff', beside Lith. *pelai* pl. 'chaff'. Lith. *pił-va-s* 'belly'; *kal-và* 'hillock' (from *kėl-ti* 'to lift'). O.C.Sl. *krava* 'cow' for **kor-vā* (Lith. *kārvė*, containing a further suffix), compare Lat. *cer-vo-s*; *gri-va* 'mane': Skr. *grī-vā* 'nape, neck'.

In Lithuanian it occurs in adjectives in *-y-va-s*, connected with verbs in *-y-ti*, as *daly-va-s* 'sharing in' (*dalyvu būti* 'be a sharer in') from *daly-ti* 'to divide', *aký-va-s* 'provided with eyes, inquisitive' from *akýti* 'to get eyes, become porous' (cp. *akýla-s* 'observant'). In Slavonic there are adjectives in *-i-vũ* *-a-vũ*,

connected with verbs in -i-ti -a-ti, as *chodi-vū* 'moving' from *chodi-ti* 'to go', *ljubi-vū* 'loving' from *ljubi-ti* 'to love', *laska-vū* 'coaxing, flattering' from *laska-ti* 'to flatter', *dēla-vū* 'effective, active' from *dēla-ti* 'to effect, work'. These adjectives in -y-va-s -i-vū are parallel to the Latin adjectives in -ivo-s; see Rem. 2.

§ 65. The Suffixes -no- -nā-, -yno- -ynā- and -eno- -enā-, -ono- -onā-¹⁾.

With regard to the relation of -yno- to -no-, see I § 227 p. 193 f.

It is often maintained that the first vowels of -eno -ono- are the same as the verbal thematic vowels *e* and *o*, so that e. g. the stem of Skr. *bhāraṇa-m* 'act of bearing' is to be divided into *bhāra-ṇa-*, and compared with the *bhāra-* of the 3. sing. *bhāra-ti*; and that of Goth. *baíran* 'to bear', into *baíra-na-*, and compared with the *batra-* of the 1. pl. *baíra-m*. This analysis cannot be justified by reference to forms like **dōno-m* 'act of giving' (Skr. *dāna-m*, Lat. *dōnu-m*) beside **bher-eno-m* **bherono-m* 'act of bearing', or to such as part. pass. **dhēno-s* seen in O.H.G. *gi-tān* 'done' O.C.Sl. *o-dēnū* 'done round with, set round with, clothed' beside O.H.G. *gi-zog-an* 'drawn' (-ono-) O.C.Sl. *nes-enū* 'borne' (-eno-). In these forms it is very far from certain that the suffix is -no- (stem **dōno-* = $\sqrt{dō}$ + suffix -no-, and so forth), since there is good reason for believing that the initial vowel of the suffix was contracted with the vowel of the root in proethnic Indo-Germanic, in just the same way as, for instance, the 3. sing. conj. **dōti* (Skr. *dāti*) from **dō-e-ti* (see I § 115 p. 107). Now if we consider that it is just in tenses which have no thematic vowel that -eno- -ono- has firmly established itself as a participial suffix (Skr. *bibhid-ānā-s* Goth. *būt-an-s* from \sqrt{bheid} - 'split, bite'. Goth. *fulg-in-s* 'hidden', O.C.Sl. *nes-enū* 'borne', Skr. *dviṣ-ānā-s* beside the indic. *dviṣ-ṭṣ*, *dviṣ-* 'hate', Avest. *yn-āna-* beside the indic. *yn-ē*, *jan-* 'slay') it will be seen that for our purpose 'it

1) Schnorr von Carolsfeld, Das lat. Suffix *ānus*, Archiv f. lat. Lexicogr. I 177 ff.

is absolutely necessary to regard -eno- -ono- as a simple indivisible suffix. From its usage it is clear that this suffix is very closely related to -no- -yno-; and there is nothing to prevent our assuming that -no- -yno- are the weak-grade forms corresponding to -eno- -ono-, just as we have side by side -mmo- (-myno-?), -meno- -mono- (§ 71) and -tro- -tyro-, -tero- -toro- (§ 75). The assumption of this ablaut-relation, i. e. that -no- arose from -eno- (-ono-), would still hold good even though we regarded -eno- as ultimately divisible into two elements (-e-, -o- + -no-), cp. *rudyt- the weak-grade form beside *rudo-nt- (§ 125).

This *n*-suffix formed chiefly verbal nouns, partly adjectives and partly substantives; the latter especially in the neuter and feminine, with abstract meaning (see § 158).

The suffix -(e)no- is characterised by its fertility as a participial and infinitival suffix in several languages, and some of the groups of adjectives and participles which it formed were very extensive.

As a secondary suffix it did not spread far until the Indo-Germanic languages had begun their separate development, and then only in a few branches.

Remark. Sometimes it is not easy to distinguish whether in any particular word we have the suffix -(e)no- or an *en*-stem extended by the suffix -o-, i. e. an example of transference into the *o*-declension. The latter is undoubtedly the case e. g. in Skr. *āśn-a-s* beside *dśan-* m. 'stone', *pūśān-a-s* beside *pūśān-* name of a deity (§ 60 p. 112), Gr. *ἰλλός* : 'young stag' for *ἰλν-*o-s*, beside O.C.Sl. *jelen-* 'stag', *ἀκόν-η* 'whetstone' beside Skr. *āśan-*, Lat. *pullu-s* for **puln-o-s* beside Goth. *fulin-* 'foal', Lith. *jekn-os* pl. 'liver' beside Skr. *yakn-*. On the other hand it is doubtful whether Lat. *rēgnu-m* contains the suffix -no-, or is an *en*-stem which has passed over to the *o*-declension, and is therefore identical with Skr. *rājān-* 'government, regimen'. Cp. § 71 Rem., § 94 Rem.

§ 66. 1. The Suffix in the form -no- -yno-. The form -no- is found especially in verbal adjectives, which, like those in -to- (§ 79), were made from the verbal stem (not from a particular tense-stem). In Sanskrit these adjectives formed a fairly large class of participles by the side of the *to*- participles and of similar character. They are chiefly passive in meaning.

Besides these there are numerous substantives, many of which can be shown to have existed in the proethnic language, of different genders and generally abstract in meaning:

The form *-yno-* has on the whole the same value as *-no-*. Yet it must be observed that not *-no-*, but only *-yno-* appears to occur as the medial participial suffix of non-thematic present forms.

The nouns formed with *-no-* *-yno-*, when used as adjectives (participles), have almost always the weak grade of ablaut in the root-syllable (the suffix bearing the accent, e. g. **pľ-nó-* 'filled' $\checkmark pel-$, Skr. *pūr-ná-*), but as substantives more commonly the strong grade form (e. g. **qoi-nā* 'requit', $\checkmark qei-$, Gr. *ποι-νῆ*). Differences like **sup-no-* **syep-no-* **suop-no-* 'sleep' are indications that the strength of the root-syllable varied within the case-system of the same word.

Idg. **pľ-nó-* **pľ-nó-* 'filled, full', from $\checkmark pel-$ 'fill': Skr. *pārná-s* Avest. *per-na-* Gr. perhaps *πολλοί* 'many' (see I § 306 p. 242), O.Ir. *lan*, Goth. *fulls* pr. Germ. **fulna-z*, Lith. *pl̃na-s* O.C.Sl. *pl̃nū*; cp. Skr. *pūr-tá-s* Lith. *pl̃t-ta-s* 'filled'. **plē-nó-* 'filled' from *plē-* 'to fill': Skr. *prāná-s* Lat. *plēnu-s*; cp. Skr. *prā-tá-s* Lat. *im-plē-tus* 'filled'. Skr. *ánna-m* 'food' for **ad-na-* (I § 477, p. 352) Gr. *ἔδ-αρό-ς* 'catable' *ἔδ-αρό-ν* 'food' (with *-yno-*, see below), $\checkmark ed-$ 'eat'. Avest. *per-nā-* f. Goth. *fullō* f. (which has passed over to the *n*-declension) 'fullness'. **qoi-nā-* f. 'requit' from $\checkmark qei-$ (Skr. *cay-* Gr. *τεῖ-*): Avest. *kaēnā-* 'punishment', Gr. *ποινῆ* 'requit', punishment, reward', O.C.Sl. *cēna* 'price'. **sup-no-* **syep-no-* **suop-no-* m. 'sleep, dream': Skr. *svápnas*, Arm. *ĕun* (**suop-no-*, I § 162 p. 145, § 201 p. 169) Gr. *ἕπνο-ς*, Lat. *somnu-s* (probably **syep-no-*, I § 172 p. 152) O.Ir. *suan* O.Cymr. *hun* (cp. I § 339 Rem. p. 269), O.Icel. *svefn*, Lith. *sāpnas* O.C.Sl. *sūnū*.

**leuqsnō-* or **louqsnō-* 'shining': Avest. *raoxšna-* 'shining', Lat. *lūna* O.Lat. inscr. *losna* for **loucsnā*, O.Ir. *luan* 'moon', Pruss. *lauwnos* pl. 'stars', compared with *leuq-s-* in Skr. *rukṣā-* 'shining', Lat. *illūstri-s* for **in-loucs-tri-s*, A.S. *līxan līxan* 'give light' for **liuhs-jan*, from $\checkmark leuq-$; on the other hand, without *-s-*, O.Sax. *log-na* (o probably short) 'flame'. Words

of this kind with *-s-* gave rise to a form *-sno-*, regarded as a single suffix, which occurs in a few words; see below. Cp. *-s-ni-* § 94.

Pres. medio-pass. part. with *-yno-* (beside this is found *-ono-*, cp. § 67). **kei-yno-* 'lying' beside the indic. Skr. *śē-tē* Gr. *κεῖ-ται*: Avest. *say-ana-* 'lying' (Skr. *upari-śayanā-m* 'resting-place'), Gr. *Ὠ-κεανός* 'he who surrounds' (cp. Skr. *d-śētē*; von Fierlinger, Kuhn's Ztschr. XXVII 477). Gr. *ἐδ-ανός* 'eatable' beside the indic. Skr. *ád-mi*; *ἑανός* 'dress, cloak' for **fēso-avo-* beside the indic. Skr. *vás-tē*.

Remark. This view of Ar. *-ana-* and of Gr. *-avo-*, so far as they have the same meaning as *-māna-* *-mna-* and *-μενο-*, cannot be called certain. As my pupil Herr H. Hirt reminds me, they may be regarded as having arisen from **yno-*, just as the participial Ar. *-āna-* can be referred to *-yno-*; see § 67, b. Rem. p. 152.

The meaning of *-no-* is not clear in **oi-no-s* 'unus': Gr. *οἶνός οἶνῃ* 'ace on a die', Lat. *oīno-s oenu-s unu-s* O.Ir. *oen* Goth. *ains* Lith. *vėna-s* O.C.Sl. *inū*.

Aryan. Skr. *ū-nā-* 'where something is lacking, defective' Avest. *ūna-* 'empty' from $\sqrt{eu-}$ (Gr. *εὕ-ν-ς* 'needing, bereft'). Skr. *kṣī-nā-* 'diminished, vanished, waning': compare perhaps Gr. *φθι-νός-καρπος* 'with fruit vanishing or vanished' (cp. Fick, Wörterb. I³ 236, Osthoff Morph. Unt. IV 115). Skr. *dīrṇā-* 'torn to pieces, scattered, beheaded' Avest. *dar-nā-* f. 'cleft, ravine': O.H.G. *zorn* A.S. *torn* n. 'indignation, anger', properly 'a torn or rent condition of the temper' (ground-form **dy-no-m*). Skr. *dī-nā-* 'bound' (*dā-* 'bind'), *bhug-nā-* 'bent' (*bhuj-* 'bend'), *bhinnā-* 'split' for **bhīd-na-* (*bhīd-* 'split'); thus it frequently appears as a living participial suffix. Skr. *uṣ-nā-* 'hot', also subst. m. and n. as well as f. (*uṣ-nā-*) 'heat'. Skr. *bradh-nā-s* 'pale', O.C.Sl. *bronū* 'whitish' for **brod-nū*. Skr. *tūṇa-s* 'sheath, quiver', ground-form **tj-no-s*, $\sqrt{tel-}$ (Gr. *τελαμών* etc.) Skr. *yaj-nā-* Avest. *yas-na-* m. 'worship, sacrifice', $\sqrt{jaḡ-}$ 'to honour' (for the *-s-* of the Avest. form see I § 403 Rem. p. 298): Gr. *ἀγ-νός* 'revered, hallowed, pure'. Skr. *praś-nā-* Avest. *fraś-na-* m. 'question', $\sqrt{prek-}$. Skr. *sthūṇā-* 'post, pillar' for **sthūr-na-*, Avest. *stūnā-* in *hazarō-stāna-* 'with 1000 pillars', ground-form **stf-nā-*: Gr. *στυλή*, see p. 143.

With -s- between root and suffix: Skr. *tik-ṣṇá-* 'sharp' (cp. *tig-má-* 'sharp'), *kṛt-sná-* 'whole, complete', and other examples.

The existence of Aryan -ana- = -ṇna- is hard to verify, because of its coincidence in form with orig. -eno-. Besides examples like Ved. *yaj-aná-* beside *yaj-ñá-* (I § 227 p. 193 ff.) and the above mentioned medio-pass. pres. part. (cp. also Avest. *aoj-ana-* beside impf. indic. *aox-ta*, *hu-nv-ana-* beside pres. indic. *hu-nū-itē* and others), we should perhaps add here Sanskrit oxytone adjectives like *krōṣ-aná-* 'screaming', *rōc-aná-* 'shining' *jar-aṇá-* 'perishable', with the abstract substantives *śvēt-aṇá-* 'the dawning' *jar-aṇá-* 'old age' (cp. Gr. στεγανός and στεγάρη); the palatal sound instead of the guttural in *rōc-aṇá-* *sac-aṇá-* and other words was taken from such forms as *rōcatē* (see I § 448 Rem. p. 333). Cp. -ani- = -ṇni- § 95, and -anu- = -ṇnu- § 106.

It is only occasionally used as a secondary suffix. Skr. *strāi-ṇa-* 'female' from *strī-* 'woman', *pāṇs-ná-* 'male' from *pāṇs-* 'man', *purā-ṇá-* 'former, old' from *purā* adv. 'formerly'. Here also come *vadhasná-m* 'deadly weapon' beside *vadhá-s* and *vádhar*, of similar meaning, and *karásna-s* 'forearm' (cp. *kará-s* 'hand'), if they contain -as-stems, cp. Goth. *hláivasnōs* pl. f. 'grave' beside neut. *hláiv* with similar meaning; the Sanskrit ending is in most cases explained as -a-sna-.

Armenian. *kun* 'sleep' from **ṣuop-no-*, see p. 140 above. *gi-n*, gen. *g-no-y*, 'cost' from **ues-no-* or **uēs-no-*: Skr. *vas-ná-s* Gr. ὄνο-ς ὀνή 'sale-price, value' for **ḡwo-no-* -*vā-*, Lat. *vēnu-m* for **ves-no-* or **vēs-no-*. Perhaps we should add *vasn* 'on account of' (beside O.Pers. *vaš-na-* and Avest. *vas-na-* 'will, favour', √ *ueḥ-*; the Avest. form is for **vašna-* through the influence of the pres. *vaš'mi*), and the derivative *un-ain* 'empty' (beside Skr. *ū-na-*; Armen. *u-* for Idg. *eu-*, cp. Gr. εὔ-ν-ς).

Greek. στεγνός 'hated'. σπαρνός 'scattered, rare, thin', beside σπείρω. σεμνός 'revered' for **seβ-nó-ς*, √ *tjeg-* (I § 492 p. 362). στεγνός 'covered, covering'. σμερδνός 'terrible'. περσνός 'sprinkled, motley, dark': O.H.G. *forhana* f. 'trout', ground-form **pyḥ-nā*. δάνος n. 'loan' is no doubt based upon a form

**dā-no-* from $\sqrt{dā-}$ 'give' (cp. § 132). *λάγ-νο-ς* 'lewd, wanton': cp. Lat. *lēna* for **lēx-nā* (beside *laxu-s*). *λίχ-νο-ς* 'dainty, greedy': cp. O.H.G. *lecchōn* 'lick', for pr. Germ. **likkōna-n* from stem **liġ-na-* I § 538 p. 394. *φοῦ-νο-ς* *φοῦ-νη* 'toad': O.H.G. *brū-n* 'brown'. *θῦ-νο-ς* 'throng, battle': Skr. *dhū-na-s* 'violently moved'. *οἶ-νο-ς* 'wine' *οἶ-νη* 'vine' *οἶ-νο-ν* 'vine-leaf, vine-branch': Lat. *vī-nu-s* *vī-nu-m* and the derivative Armen. *qi-n-i* 'wine' (§ 63 p. 127), from $\sqrt{uei-}$ 'to wind', and hence we should place in the same group Russ. *věn* 'wreath' and the derivative O.C.Sl. *věn-icī* Lith. *vain-ika-s* 'wreath'. *πύρ-ανο-ς* *-ανο-ν* 'that with which fire is held, fire-tongs, coal-pan' for **-ανσ-νο-* (see Osthoff, *Zur Gesch. d. Perf.* 488), to which add possibly *κερ-αννό-ς* 'lightning flash'. *τέκ-νο-ν* 'child' (that which is begotten', from *τεκίην*): O.H.G. *degan* m. 'boy, servant' pr. Germ. **þez-nā-s*. *στέρ-νο-ν* 'breast': Skr. *stīr-nā-* 'outspread', cp. also O.H.G. *stirna* f. 'star' ground-form **ster-n-īā*, $\sqrt{ster-}$ 'spread'. **δεμ-νο-*, whence *δέμνιο-ν* 'bedstead', as being a 'place built' for a bed, from $\sqrt{dem-}$. *κλί-νη* 'couch, bed': O.H.G. *li-na* *le-na* 'support', $\sqrt{klei-}$ 'accline'. *στήλη* Lesb. *στάλλā* 'sepulchral pillar' for **στάλ-νā* ground-form **stl-nā-* (by-form *στιγλή* = **σταλν-ι-ā*?): Skr. *sthūṇā* 'post, pillar' see above p. 141. *ζώνη* 'girdle' for **ζωσ-νā*, $\sqrt{jōs-}$. *φερ-νί* 'dowry' *πόρ-νη* 'whore' beside *πέρνημι* 'I sell', ground-form **por-nā-* or **př-nā-*.

-ανο- = *-ηno-*. There are a considerable number of participial words besides those given above on p. 140. *στεγ-ανό-ς* beside *στεγ-νό-ς*. *πιθ-ανό-ς* 'easily persuaded, persuasive'. *στέq-ανο-ς* *-άνη* 'wreathing, wreath'. *χόδ-ανο-ς* 'buttocks' (from *χέζ-ω*). *δρέπ-ανο-ν* *-άνη* 'sickle'. *ὄχ-ανο-ν* *-άνη* 'shield handle' (from *ἔχω*). *θήγ-ανο-ν* *-άνη* 'whetstone'. *σκέπ-ανο-ν* 'covering' (beside *σκεπ-ανό-ς*). *κόπ-ανο-ν* 'pestle, hatchet'. *ἐρκ-άνη* *ὄρκ-άνη* 'enclosure'.

As a secondary suffix it is not uncommon:

First should be mentioned the words in *-εσ-πο-* (Lesb. *-ενο-*, Ion. Att. *-ενο-*, Dor. *-ηπο-*) and *-ασ-νο-* (Lesb. *-ανο-*, Ion. Att. *-ηπο-*, Dor. *-ανο-*). *ἀλγεινό-ς* 'paining, painful' from *ἄλγος* n. 'pain'. *φαινό-ς* 'shining' from *φάος* n. 'light', etc. Homeric (Lesb.) *ζραννό-ς* 'lovely' beside *ἔρως* (see Solmsen, *Kuhn's Ztschr.*

XXIX 70. 109). *σελήνη* 'moon' (Lesb. *σελάννᾱ*) from *σέλας* n. 'brightness'. In the oldest adjectives of this sort, which were participles of denominative verbs, -no- may have been primary; compare *ποθενός*-ς *κοτεινός*-ς with *ποθέσαι* *κοτέσαι* (**ποθεσ-σαι* **κοτεσ-σαι*) and *ἐρασ-τός*-ς beside *ἐραννός*-ς.

Further, under this head come adjectives of time like *ἐαρινός*-ς *ἡαρινός*-ς (misspelt *εἰαρινός*) 'vernus', *ἡμερινός*-ς 'daily' *νυκτερινός*-ς 'nocturnus' *περυσινός*-ς 'from last year, a year old'. These appear to have been formed from locatives, *ἐαρι*, *πέρνσι* (cp. also *ἡμαρ*, *νύκτωρ*). Then -ino- broke off and became an independent suffix, hence *δειλ-ινός*-ς 'of the evening', and the like. For analogous adjectives in Italic, see below.

With -ano- as a secondary suffix: *κόπρ-ανο-ν* 'stool' (*κόπρος*-ς), *ἔδρ-ανο-ν* 'seat' (*ἔδρᾱ*) and others. Was the suffix -dano- taken from *οὐτιδανός*-ς 'useless' = *οὐ-τιδ-ανός*-ς (**τιδ* = Lat. *quid*)? Cp. -d-ανο-ς, taken from *ποδ-από*-ς and the like (§ 16 p. 32).

Italic. Lat. *plē-nu-s* Umbr. *plener* 'plenis': Skr. *prā-na-s*, see p. 140 above. Lat. *cānu-s* for **cas-no-s*, Osc. Pelign. *casnar* 'senex' (extended by an *r*-suffix). Lat. *vī-nu-s -nu-m*, Umbr. *vinu* 'vinum' Volsc. *vinu* abl. 'vino'. Lat. *urna* for **urc-nā*, Umbr. *urnasier* 'urnariis, feriis'. Lat. *fānu-m* for **fas-no-m*, Umbr. *fesnaf-e* fem. pl. 'in templum', Osc. *fīisnam* *fīisnam* fem. acc. 'templum', Pelign. *fesn.* (abbreviated) 'templum', beside Lat. *fēs-tu-s fēr-iae*, in the *ē*-series of Ablaut.

Lat. *dīgnu-s* as compared with *deceť*, for **dec-no-s* (I § 65 p. 53, § 500 p. 366), or with O.Icel. *tīgenn* 'distinguished' *tīgn* f. 'distinguished rank', for **dic-no-s* (✓ *deik-* 'show') *agnu-s*: Gr. *ἀμνός*-ς 'lamb' for **āβ-vo-s*, O.Ir. *uan* Mod.Cymr. *oen* 'lamb' (I § 428 p. 315, § 437 p. 325), also O.C.Sl. **jagnŭ*, implied by the formation *jagneť* 'lamb'. *pūgnu-s*, *pūgnāre*, beside Gr. *πυγ-μή* 'fist, fight with fists'. *grā-nu-m* 'grain, kernel', ground-form **gṛ-no-m*: Skr. *jṛ-nūi-* 'ground, crumbled', Goth. *kaúr-n* n. 'grain', O.C.Sl. *zrī-no* 'grain, kernel, berry', compare also O.H.G. *kerno* O.Icel. *kjarne* m. 'kernel', formed from the *ē* grade of the root (*ger-*). *līgnu-m* is no doubt to be compared with *legō*; *tīgnu-m*: cp. Gr. *τίχ-νη* 'power of production, art, skill'. *lāna* for **ulā-nā*, ground-form

**ul-nā*: Skr. *ūr-nā* 'wool' Gr. οὔλο-ς 'curly' for *φολ-vo-ς*, Goth. *vulla* 'wool' pr. Germ. **ul-nō*, Lith. *vil-na* 'fibre of wool' O.C.Sl. *vlū-na* 'wool'. The same suffix appears to be contained, though less obviously, in *fundu-s*: Skr. *budh-nā-s* 'ground' (I § 221 p. 189).

With -s-: Lat. *annu-s* for **at-sno-s*: cp. Goth. *aþn*; *penna* O.Lat. *pesna* for **pet-snā*, (✓ *pet-* 'fly' ¹), and other examples.

Lat. -ino- unaccented = -yno-. It is of course hard to say what forms are to be classed here, since unaccented -ino- may equally well represent Idg. -yno-, -eno- or -ono-. The words we have to deal with are such as *dom-inu-s* *pāg-ina* *sarc-ina*, probably also *verna* for **ves-inā* (✓ *ues-* 'live').

As a secondary suffix it is not uncommon:

Lat. *aēnu-s* for **aēs-no*, Umbr. *ahes-nes* 'aenis', beside Lat. *aes*, *aeris*, Skr. *āyas-* n. 'metal, iron'. Lat. *ilīgnu-s* for *ilec-no*- from *ilex*, *salīgnu-s* from *salix* (the ending was referred by popular etymology to ✓ *gen-*, cp. *abiēgnu-s*, *fabāginu-s* and so forth), *acer-nu-s* from *acer*, *ebur-nu-s* from *ebur*; the final vowel of the stem has been lost in *pōpulnu-s* from *pōpulu-s*, *quernu-s* for **querc-nu-s* from *quercu-s* etc. Besides these we have *pater-nu-s*, *māter-nu-s*; *alter-nu-s*, *infer-nu-s*, *exter-nu-s*. Stems in -ā seem to have given rise to -ānu-s: *silvānu-s* (*silva*) *insulānu-s* (*insula*) *Capuānu-s* (*Capua*); hence in other local adjectives, *urbānu-s*, *cismontānu-s* *Rhēnānu-s* etc.

vērnu-s, *nocturnu-s*, *hibernu-s*, *vesperna* and the like are parallel to Gr. ἐαρινό-ς, νυκτερινό-ς, χειμερινό-ς, ἐσπερινό-ς (see

1) *Penna* must be distinguished from *pinna*. The latter, with *pannus* Gr. πῆνο-ς (common ground-form **pē-no*-, see I § 253 p. 206 f.) belongs to A.S. *finn* Mod.H.G. *finne* 'fin', a Germanic word which Müllenhoff (*Altertumskunde* II 54) connects in an interesting way with the name of the *Fenni*, although he is certainly wrong in taking a ground-form **pet-nā* as his starting-point. The words most nearly akin to it are O.H.G. *spannan* 'to stretch', Goth. *fana* 'cloth, rag' (Mod.H.G. *fahne*), O.C.Sl. *pīnq* 'I stretch, hang' *o-pona* 'curtain'. On ✓ *spen-* and *pen-*, see I § 589 p. 445 f. The bird's wing and the fin therefore received their name as being something 'out-stretched'.

p. 144), and perhaps in Latin also *-no-* was added to the locative in *-i*, and this vowel afterwards lost ¹⁾).

Umbr.-Osc. **kom-no-m* 'τὸ κοινόν' from *kom* 'cum', Umbr. *kumne* loc. 'in comitio' Osc. *comenei* loc. 'in comitio' *comono* pl. 'comitia' (for the Oscan anaptyxis cp. I § 627, p. 471). Osc. *amnod* 'circuitu' from *am-* 'amb-'. Lat. *prōnu-s* no doubt for **prōd-no-*, compare *prō(d)*.

Lastly, there are the distributive numerals derived from adverbs, like Lat. *bīnī* from **bis-no-*, *trīnī* from **tris-no-*, *ter-nī*, *quater-nī*.

Old Irish. *lā-n* 'full': Skr. *pūr-ṇá-s* etc., see p. 140. *slān* 'whole, sound, complete, full' may be for **sl̥-no-*, as Lat. *sal-vo-s* for **sl̥-yo-*. *cloe-n* 'awry, unjust, bad': cp. Goth. *hlái-n-s* 'hill', √ *klei-* 'to lean', whence also Gr. *κλι-νῆ* O.H.G. *li-na* (p. 143). *suan* O.Cymr. *hun* sleep: Skr. *sváp-na-s* etc., see p. 140. *uan* Mod.Cymr. *oen* 'lamb': Gr. *ᾠνό-ς* etc., see p. 144. *domun* m. 'world', Gallic *Dubno-rīx* 'world-king'; with this should probably be compared *fu-domain* 'deep' Mod.Cymr. *dwfn* 'deep' (I § 520 p. 378): O.C.Sl. *dūno* n. 'ground' for **dūb-no-*, Lith. *dūgna-s* 'ground' (with *g* for *b*, I § 346 p. 271). *ēn* m. 'bird' (I § 518 p. 377 f.), O.Bret. *etn* 'bird': cp. Lat. *penna* for **pet-snā* p. 145, √ *pet-* 'fly'. *fēn* m. 'waggon' (I § 526 p. 381): O.Icel. *vagn* m. 'waggon', √ *uegh-* 'vehere'. *dū-n* n. 'walled stronghold', Gall. *-dūnū-m* in place-names like *Novio-dānu-m* 'New-castle, New-town': O.Icel. *tū-n* n. O.H.G. *zū-n* m. 'fence, hedge'. *rū-n* f. 'secret': Goth. O.H.G. *rū-na* f. 'secret', with which, in a different grade of Ablaut, cp. O.Icel. *rau-n* f. 'attempt, proof, test, experience'. This suffix, though less clearly discernible, appears to be contained in *bond bonn* 'solea': Skr. *budh-ná-s* 'ground' (I § 221 p. 189).

Pr.Kelt. *-ano-* = *-yno-*. Since this, if unaccented, became in Irish identical with orig. *-ono-*, it is hard to say which of the examples should be classed here. Perhaps *lethan* O.Cymr.

1) Does *hibernu-s* stand for **híbrino-s*, as *in-certu-s* for **in-crito-s* (I § 33 p. 33 f.)? The word is undoubtedly connected with *hiems*, but the *b* has never been explained.

litan 'broad': cp. Gr. *πλάτανο-ς* 'plane' (named after its broad leaves, compare *πλάτν-ς*). Infinitive nouns like *blegon* m. 'milking' may also perhaps be referred to *-yno-*.

As a secondary suffix it is found in Gall. *Arebrig-nu-s* (*pagus*) 'lying on a hill' compared with *Arebrigiū-m*, beside O.Ir. *bri*, gen. *breg*, 'hill'. Also no doubt in Keltic words in *-er-no-ar-no-* (Zeuss-Ebel G.C. 774), as Gall. *Tigerno-*, *isarno-* 'iron', O.Ir. *iarn* O.Bret. *hearn* (I § 576 p. 431), whence perhaps were borrowed Goth. *eisarn* O.H.G. *isarn* 'iron' (the suffix in O.H.G. *diorna* 'wench' Goth. *viduvairna* 'one bereaved' etc. cannot be held to prove that this is a real Germanic word.)

Germanic. Goth. *fulls* O.H.G. *vol* (gen. *volles*) 'full', pr. Germ. **ful-na-z*: Skr. *pūr-ná-s* etc. see above p. 140. Goth. *alls* O.H.G. *al* (gen. *alles*) 'whole, all' (beside *ala-*) ground-form **al-no-s*, beside *alan* 'to grow up, increase' (cp. Gr. *νάς* 'whole, all' compared with Skr. *śvā-* 'swell out', § 126, and Lat. *omni-s* for **op-ni-s* beside *ops*, § 95); Osc. *allo* is the same word if it is to be translated 'tota' and not 'alia' (Fick, Bezzenger's Beitr. I 170; Danielsson, Pauli's Altital. Stud. III 177 f.). Goth. *ib-n-s* O.H.G. *eban* 'flat, even'. O.H.G. *scī-n* 'visible, shining', as subst. m. 'visibility, brightness, sheen'. Goth. *us-lūk-n-s* 'opened, open'. Goth. *faihu-gatr-n-s* 'avaricious' O.Icel. *gjarn* 'greedy'. O.H.G. *mei-n* 'false, treacherous', as subst. 'falseness, wickedness'; Lith. *maĩ-na-s* 'barter' O.C.Sl. *mě-na* 'change, exchange', common ground-form **moĩ-no- nā-*, cp. **moĩ-ni-* § 95. O.H.G. *loc* (pl. *loccha*) O.Icel. *lokkr* m. 'lock' pr. Germ. **lug-ná-s* (I § 534 p. 391): Lith. *lug-nā-s* 'bent'. O.H.G. *sker-n* m. n. 'jest'. Goth. *aþ-n* n. 'year': cp. Lat. *annu-s* for **at-sno-* p. 145. Goth. *haúr-n* O.H.G. *horn* pr. Norse *horna* n. 'horn': Gall. *κάρνο-ν* acc. 'trumpet' (Hesych.) beside Lat. *cornu* (also *corno-*, § 106). Goth. *bar-n* 'child' ('that which is born'): Lith. *bér-na-s* 'servant', dimin. *bernėli-s* 'little boy' (cp. a similar change of meaning in Gr. *τέκνο-ν*: O.H.G. *degan*). Goth. *láu-n* O.H.G. *lō-n* n. 'wages', beside Gr. *ἀπο-λαύω* 'enjoy' O.C.Sl. *lovŭ* 'prey, booty'. O.H.G. *zeihhan* O.Sax. *tēkan* n. 'token' pr. Germ. **taik-na-* (compare Goth. *táikns* f., stem *táik-ni-*, 'token'), from

✓ *deik-* *deig-* (Goth. *ga-teihan* 'point out'). O.H.G. *feihhan* O.Sax. *fekan* n. 'deceit' pr. Germ. **fai-k-na-*, from ✓ *peik-* *peig-* (Goth. *fáih* n. 'deceit'). O.H.G. *loug-na* O.Icel. *lau-n* f., in O.H.G. also *lougan* (subst. m.) 'giving the lie, denying': the root has a different grade of ablaut in Goth. *liug-n* n. 'lie'. O.Sax. *log-na* (o probably short) 'flame': cp. Lat. *lūna* for **loucsnā* etc. p. 140.

Germ. *-uno-* = *-yno-* cannot be identified with certainty.

In secondary use the suffix only occurs in Goth. *jái-n-s* 'that, yonder' from loc. **ioi* (beside it stands a pr. Germ. **i-na-* from the locative form **iei* in A.S. *bē-gen* m. 'both' according to Holt-hausen, Paul Braune's Beitr. XIII 372. 590), unless Goth. *hlái-vasnōs* pl. f. 'grave' from *hldiv* n. 'grave' and *arhvazna* f. 'arrow' beside A.S. *earh* n. 'arrow' are to be classed here, as derivatives from *es*-stems, cp. Skr. *vadhasnā-* p. 142.

Balto-Slavonic. Lith. *plū-na-s* O.C.Sl. *plū-nū* 'full': Skr. *pūr-nā-s* etc., see p. 140 above. A few other adjectives of this kind occur in Baltic, as Lith. *kił-na-s* 'lofty' beside *kėl-ti* 'to raise' (*kāl-na-s* 'hill' should perhaps be divided *kal-n-a*, see the Author in Morph. Unt. II 173), *silp-na-s* 'weak, powerless' beside *silp-ti* 'to grow weak'; *lūd-na-s* 'sad' beside *lūsti* 'to grow sad', Lett. *wif-n-s* 'glimmering' beside *wif-ēt* 'to glimmer', Lett. *tāis-n-s* 'straight, right' beside Lith. *taisýti* 'to direct'. Lith. *dē-na* f. adj. of cows 'in calf': Skr. *dhé-nā* 'milk cow', from ✓ *dhēi-* 'suckle' (I § 150 p. 136).

Lith. *peļ-na-s* 'merit' O.C.Sl. *plē-nū* 'booty': Skr. *pana-s* 'wager, stipulated wage' for **par-na* (I § 259 p. 211 f.). Lith. *vař-na-s* 'raven' *vár-na* 'crow' O.C.Sl. *vra-nū* 'black, raven' *vra-na* 'crow', possibly to be compared with Skr. *vár-na-s* 'colour'. There seems to be some connexion between the roots of Lith. *szē-na-s* O.C.Sl. *sē-no* 'hay' (the Lith. word was no doubt originally neuter) and Skr. *śyā-na-s* 'grown dry' *śi-na-s* 'curdled'. Lith. *szal-nà* O.C.Sl. *sla-na* 'rime', beside Lith. *szál-ta-s* Skr. *śt-śir-a-s* adj. 'cold'. Pruss. *spoay-no* f. 'foam' or 'scum' O.C.Sl. *pē-na* 'foam': Skr. *phé-na-s* 'foam', cp. also Lat. *spūma* for **spoī-mā* (for the initial, see I § 599 p. 445 f.)

With *-s-*; Lith. *lėp-s-nà* 'flame', *varsnà* 'length of a furrow' for **vart-snà* (cp. *varsma-s* 'length of a furrow' for **vart-sma-*).

Lith. *spař-na-s* 'wing': Skr. *par-ná-m* 'wing', $\sqrt{\text{sp}}$ er- 'strike away, push off, jerk'. *skut-nà* 'shaved place'. *žar-nà* 'intestine': O.Icel. *garnar* pl. 'intestinae'. *dai-nà* 'folk-song': Avest. *daē-nā*-f. 'law, teaching, faith'.

O.C.Sl. *trǐ-nũ* 'thorn': Skr. *tř-na-m* 'grass-stalk', Germ. with *-nu-* Goth. *þaur-nu-s* 'thorn'. *synũ sunũ* 'tower' no doubt stands for pr. Slav. **sũp-no- *soup-no-* 'that which is piled up', cp. *sũpq* 'I pile' *sũpũ* 'heap'. *člě-nũ* 'limb' for **čel-no-*. *trěs-nũ* 'fimbria' for **trěsk-nũ*, beside *trěskũ* 'noise' *trěsnqti* 'to strike'. *střg-no* 'shank'. *ru-no* 'fleece', beside *rũv-q* 'evello'. *sukno* 'woollen garment', beside *sukati* 'to twist'. *věno* 'dowry' for **věd-no-*: Gr. *ĩd-ra ěd-vu* 'bridal gifts', $\sqrt{\text{uedh- ued-}}$ 'lead, lead home' (I § 469, 8 p. 346 f.). *vlũ-na* 'wave': O.H.G. *wella* 'wave' ground-form **uel-nā*, with *-ni-* Lith. *vil-nĩ-s* 'wave'. *slĩ-na* 'spittle', beside Mid.H.G. A.S. *slĩ-m* 'slime'. *strana* 'side, region' for pr. Slav. **stor-nā*, i. e. Idg. **stř-nā* (Skr. *střr-nā-* 'outspread') or Idg. **stor-nā*, $\sqrt{\text{ster-}}$ 'spread out'. *stě-na* 'wall': Goth. *stāi-n-s* O.H.G. *stei-n* m. 'stone'.

Lith. *-ina-* Slav. *-ĩno-* = *-yno-* may perhaps be traced in Lith. *kũp-ina-s* 'heaped up', *těk-ina-s* 'running', O.C.Sl. *do-kos-ĩnũ* 'that can be touched or held' *do-stiř-ĩnũ* 'that can be reached', etc.

-no- in secondary use. Lith. *jāu-na-s* O.C.Sl. *ju-nũ* 'young' from *jaũ ju* 'already', just like Skr. *nāva-s* Gr. *ńeFo-s* beside Skr. *nũ nũ* etc. 'now': from the same adverb come also O.C.Sl. *ju-tro u-tro* 'morning', see § 75. It is doubtful how far, if at all, the common secondary suffix Lith. *-ina-* Slav. *-ĩno-* represents Idg. *-yno-*.

§ 67. 2. In the form *-eno- -ono-*. This is almost entirely primary, and it occurs chiefly in participles and abstract nouns. It is used to form classes of words with special meanings, most commonly in Aryan, Germanic and Slavonic. *-eno-* is in active use as a participial suffix in A.S., Norse (O.Icel)

and Slavonic, as an abstract nominal suffix in Aryan; *-ono-* is a participial suffix in Aryan, Gothic and High German, and an abstract nominal suffix (infin.) in Germanic.

The suffix bears the accent where the root-syllable has the weak grade of ablaut; e. g. Skr. *vavṛt-and-s* O.H.G. *gi-wort-an* (I § 530 p. 387).

a. *-eno-* added to stems ending in a consonant:

Indo-Germanic. **uegh-eno-*, √ *uegh-* 'vehere': Skr. *vah-ana-s* 'carrying' *váh-ana-m* 'act of carrying', O.C.Sl. *vez-enŭ* 'carried'. **ed-eno-*, √ *ed-* 'eat': Skr. *ád-ana-m* 'food, fodder', O.Icel. *et-enn* 'eaten'. **uert-eno-*, √ *uert-* 'vertere': Skr. *vart-ana-s* 'setting in motion' *várt-ana-m* 'a turning', O.C.Sl. *vrět-eno* n. 'spindle'.

Aryan. *cēt-ana-s* 'visible', *ján-ana-s* 'begetter', *táp-ana-s* 'afflicting'; O.Pers. *drauj-ana-* 'lying'. Skr. *cēt-ana-m* 'an appearing, appearance', *ján-ana-m* 'a begetting' and other substantives of the same kind. Avest. *hav-ane-m* 'pressing, pressure': Skr. *sáv-ana-m*; O.Pers. *ham-ar-ana-m* 'encounter, fight', Ar. √ *ar-* 'go'. In Avestic we find the masc. *zav-ana-* 'call, summons'; contrast Skr. neut. *háv-ana-m*.

Armenian. *jaune-m* 'I offer, dedicate' from the noun stem **jauno-*, which must stand for **jaṇ-eno-* (Skr. *háv-ana-m* 'offering'), or for **jaṇ-ono-*.

Greek. Here perhaps should be classed Aeol. *φῑρῑνᾱ* 'dowry' (*φῑρῑνα*, if it be the more correct reading, would at all events imply a form **φῑρῑνᾱ*) beside *φῑρ-νη*: cp. Skr. *bhár-ana-*.

Remark. *-eno-* may perhaps be traced also in *ἐκφίνο-ς* (with spurious diphthong) Dor. *κῑφο-*; 'that' for *(*ē*)*κεῖ-ενο-ς* from *ἐκεῖ* 'there'. Similarly Dor. *τῑνο-ς*, 'is iste, ille' would stand for **τεῖ-ενο-ς* from *τεῖ*; or it might be analysed *τῑ-νο-ς* and derived from the instr. **τῑ* (cp. Goth. *idi-n-s* § 66 p. 148). It must be admitted that *-eno-* is not elsewhere used in this way as a secondary suffix.

Italic. *beno-* (in *bene*, *benignu-s*, *bellu-s* for **ben-lo-*), the by-form of *bono-*, *duono-*, should be classed here, if it stands for **du-eno-* and belongs to the root seen in Skr. *dúv-as* n. 'reverence, honour' and other words, so that the original meaning would be 'that which is held in honour, enjoys recognition'

(see Osthoff, *Morph. Unt.* IV 370 ff.). *dom-inu-s* (cp. Skr. *dām-ana-s* 'horse-tamer') and the like are ambiguous; see § 66 p. 145.

Old Irish. I know of no noun-formations which fall under this head.

Germanic. Goth. *fulg-in-s* 'hidden' (beside *filhan* 'to hide'), with the accent on the suffix in pr. Germ. (I § 530 p. 386). O.Icel. *tig-enn* 'distinguished' (✓ *deik-* 'show'). O.H.G. *sceff-in* 'sheriff', also *sceffino*, which has passed over to the *n*-declension; its original sense was no doubt 'arranger, orderer', compare O.H.G. *scaffen* 'to shape, set in order'. Add such participles as A.S. *bund-en* O.Icel. *bund-enn* 'bound'; cp. below, under *-ono-*. Goth. *dig-in* O.H.G. *eig-in* n. 'property', the original sense being no doubt 'the having for one's own': Skr. *īś-ana-m* 'rule, control'. Goth. *rag-in* n. 'counsel, decree'; if it belongs to Skr. *rac-ana-m* 'an arranging, regulating', we must assume, as in the case of Goth. *fulg-ins*, that the suffix originally bore the accent. O.H.G. *lug-ina* f. 'lie', O.Sax. *drug-ina* f. 'treachery' *stul-ina* f. 'theft' *thec-ina* f. 'covering, roof'.

Balto-Slavonic. Here should be classed certain Lettic adjectives like *glud-en-s* 'smooth', (compare *glōd-en-s* 'blind-worm') beside *glaud-ēt* 'to stroke'; *slidd-en-s* 'smooth, where one slips', beside *slidd-ēt* 'to slip'; *slepp-en-s* 'secret' beside *slēp-t* 'to hide'. Were the Lithuanian verbs in *-enù*, like *gab-enù* 'I bring', developed from noun-stems of this kind, in the same way as *kruv-inù* 'I make bloody' from *krùv-ina-s* 'bloody'?

In Slavonic we have the common past part. pass. in *-enù*, as *nes-enù* 'carried' (from *nes-ti* 'to carry'), *za-bŭv-enù* 'forgotten' (from *za-byti*; cp. Skr. *bhŭv-ana-m* 'being, thing, world'). The neut. *vrēt-eno*: Skr. *vārt-ana-m* has been already mentioned on p. 150.

b. *-ono-* added to stems ending in a consonant.

Idg. Pres. or aor. part.: **gr-ono-* from *ger-* 'make', beside indic. Skr. *ā-kar*: Skr. *kr-ānā-s* 'working, eager, busy' (frequent epithet of deities), Gr. *Κρ-όρο-ς*; **ġus-ono-* from *ġeus-* 'taste', beside the indic. Skr. *ā-juṣ-ran* (3. pl. med.): Skr. *juṣānā-s* Goth.

kusan-s. Part. perf. **bhe-bhid-onó-s* from *bheid-* 'split, bite' beside indic. Skr. *bibhéd-a* Goth. *báit*: Skr. *bibhid-āná-s* (Goth. *bit-an-s*).

Remark. This view of the Aryan forms with *-āna-* cannot be called certain. As a participial suffix of the middle we may (with Hirt) refer *-āna-* to **-ḡno-*, as the analogous *-ana-* to **-ḡno-* (see § 66 Rem. p. 141). The same *-ḡno-* may also be concealed in Gr. *πῦρό-ς* *πῆρό-ς* 'fledged' (cp. Osthoff, zur Gesch. des Perf. 409) and the adjective *ἰανό-ς* (or is this for **ḡανό-ς*?). In the Ar. *-āna-* it is possible that *-ḡno-* and *-ono-* have coalesced. The considerations urged by Fröhde (Bezenberger's Beitr. VII 322 ff.) against my comparison of *Κρόνο-ς* with *krāná-s* are not sound. The different accent of *Κρόνο-ς* is explained by the fact of its being a proper name. See what is said below in the Greek section on *κρόνο-ς*; etc.

Aryan. Pres. aor. med. pass. part. Skr. *duh-āná-s* *dúh-āna-s*, also *dúgh-āna-s*, the *gh* being phonetically regular (I § 445 p. 331, § 452. 453 p. 335), beside *dógdhi* 'he milks', *júhv-āna-s* beside *ju-hó-ti* 'he offers', *su-nv-āná-s* beside *su-nó-ti* 'he presses out', and so forth. Similarly Avest. *yn-āna-* beside *jdin-ti* 'he slays', and the like. Skr. *īś-āná-s* *īś-āna-s* 'having for one's own, possessing, ruler' Avest. *is-āna-* 'ruling, mighty' beside Skr. *īśē* *īś-tē* 'he possesses, rules': O.H.G. *eig-an* 'own', beside Goth. *áiḥ* 'he has', cp. Skr. *īś-āna-m* Goth. *áig-in* p. 151). Perf. med. pass. part. Skr. *rīric-āná-s* beside *rīréc-a* 'he let loose, removed, abandoned': O.H.G. *gi-liw-an*, *✓leiq-*; Avest. *vāver'-z-āna-* beside indic. med. Gāthic *vāver'-z-di* from *var'-z-* (*uerǵ-*) 'work'.

It is an open question whether the denominative Skr. *-āna-*, as in *vásav-āna-s* 'possessing goods' from *vásu* n. 'goods', falls under this head (cp. Goth. *þiud-an-s*).

Armenian. Perhaps *jaune-m*, see above p. 150.

Greek. Besides *Κρόνο-ς* (see above) we should probably class here *κλ-όνο-ς* 'stir, turmoil', beside *κέλ-ομαι*, *θρ-όνο-ς* 'seat, throne' from *dher-* 'hold, support', *χρ-όνο-ς* 'time' orig. 'a limit of time which contains, span', beside *χρρ-*; for the meaning cp. *ἔμετο-ς* 'a vomiting' beside *ἐμετό-ς* 'vomited' and the like, § 158.¹⁾ Of

1) The accent may have been assimilated to that of *γόν-ο-ς* *λόχ-ο-ς* *τέσπ-ο-ς* and similar words. Fröhde's assumption (in the article cited in the Remark above) that *θρόνο-ς* *χρόνο-ς* stand for **θρονο-ς* **κρονο-ς*, cannot be justified on phonetic grounds, in spite of Cret. *θόραξ*.

feminine forms we should perhaps class here *ἡδ-ονῆ* 'joy', but in *περόνη* 'clasp, buckle' *σπεινδ-όνη* 'sling' and others we must recognise *-on-ā*, an extension of *-on-* by *-ā-*, cp. *ἀκόν-η* 'whetstone' beside Skr. *āśan-* 'stone'.

Italic. Lat. *b-ono-* must ultimately be classed here; as to *beno-*, see p. 150. *dom-inu-s* and the like are ambiguous, see § 66 p. 145.

Old Irish. On account of the coincidence of *-yno-* and *-ono-* in Irish there are no examples that can be assigned with certainty to this section.

Germanic. O.H.G. *eig-an*, see above, p. 152. Goth. *v-an-s* O.H.G. *w-an* 'wanting, lacking', *✓eu-* (Gr. *ἐν-ν-ς*, Skr. *ū-ná-s*). O.H.G. *offan* A.S. *opan* 'open'. O.H.G. *wes-an* 'decayed'. O.Sax. *fag-an* 'glad', the accent being on the suffix in pr.Germ., cp. Goth. *fah-ēps* f. 'joy'. Participles like Goth. *vaurþ-an-s* (the regular phonetic form would be **vaurðans*, I § 530 p. 387), O.H.G. *gi-wort-an* 'having become': Skr. *vavrt-áná-s*; Goth. *qum-an-s* O.H.G. *gi-kom-an* 'having come': Skr. *jagm-áná-s*; Goth. *fra-vitan-s* 'avenged': Skr. *vid-áná-s*; Goth. *ana-budan-s* 'commanded, enjoined' O.H.G. *gi-botan*: Skr. *budh-áná-s*. Instead of this we find in other dialects *-ina-* = Idg. *-eno-*. We may conjecture that in Germanic *-eno-* and *-ono-* were originally distinguished as in Sanskrit. When the reduplicating syllable in the perfect fell off, the two types were no longer clearly separated, and *-eno-* drove out *-ono-* in one part of the Germanic area. We have *-ana-* in secondary use in Goth. *þiud-an-s* 'king', from *þiuda* 'people' (cp. Skr. *vásav-āna-s*?).

-ono- occurs as an abstract suffix in the Germanic infinitives formed with pr. Germ. **-ana-m*, as Goth. *áiþ-an* O.H.G. *eig-an* 'possess, have', Goth. *vit-an* O.H.G. *wizz-an* 'know', Goth. *bair-an* O.H.G. *ber-an* 'bear, bring, forth'.

Balto-Slavonic.

Lith. *álk-ana-s* (fem. *álk-anà*) 'rather hungry, fasting' from *álk-ti* 'to hunger', *úk-ana-s* 'gloomy, overclouded' (*úkanos dēnos* 'gloomy days') beside *úk-stýti-s* 'to become gloomy, cloud over', Lett. *plakk-an-s* 'flat' from *plak-t* 'to grow flat' etc. Lith.

dov-anà Lett. *dāv-ana* 'gift' beside *dū-ti dū-t* 'to give', Lith. *ūk-ana* 'mass of cloud, cloudy sky'.

Whether Slavonic forms like Mod. Sloven. *jah-on* 'fortis equitator', beside *jahati* 'vehi' (Miklosich, Vergl. Gr. II 140) should also be classed here, is doubtful. We cannot analyse O.C.Sl. *zvoni* 'sound' as *zv-onū* (cp. *zov-q zv-ati* 'to call') and compare it with Skr. *kr-ānā-s* etc. (cp. Fick, Wtb. I³ 84, Osthoff, Morph. Unt. IV 373), unless we allow that the whole verbal base *zven-* in Slavonic (O.C.Sl. *svīnēti* 'to sound') has been developed out of a noun formed with *-eno- -ono-*.

c. *-eno- -ono-* added to stems ending in a vowel. It has been already remarked on p. 138, that the contraction was complete even in proethnic Indo-Germanic.

Skr. *sōma-dhāna-s* 'containing soma' *vasu-dāna-s* 'giving good' *vi-māna-s* 'traversing', like *cēt-ana-s*. *dāna-m* 'a giving' (Lat. *dōnu-m*), *sthāna-m* 'a standing, standing-place' (Avest. *stāna-* m. 'position', Gr. *δύσθηρος* 'in a bad position, unhappy', Lith. *stōna-s* O.C.Sl. *stanū* 'position'), *yāna-m* 'a going, moving' like *cēt-ana-m*. Pres. med. pass. part. *yāna-s* beside indic. *yāti* 'he goes', like *dūgh-āna-s*. Perf. med. pass. part. *jajñānā-s* beside indic. *jajñāu* 'he knew' (Slav. part. *po-znanū* 'known'), like *riric-ānā-s*.

Gr. *δύσθηρος*, see above. **εὖ-θηρος* 'in good position' whence *εὖ-θηρέω* 'am in good position': add also El. *συν-θηραι* pl. 'compact' (Collitz' Samml. d. gr. Dial.-Inscr. no. 1168).

Ital. Lat. *dōnu-m*, Umbr. *ṛunu* Osc. *dúnú-m* Mars. *duno-m* 'donum', see above.

Ir. Perhaps *bān* 'white, pale', from *√bhā-*, Skr. *bhā-ti* 'he appears, shines' *bhāna-m* 'an appearing or growing visible'.

German. O.H.G. perf. part. *gi-tān* 'done' (O.C.Sl. *o-dēnū* part. of *o-dēti*, 'to put round, clothe'), like *gi-wort-an*. O.H.G. inf. *tōn tuon* 'do' *gān* 'go', like *ber-an*.

Balt.-Slav. Lith. *stōna-s* O.C.Sl. *stanū*, see above. Lith. *klōna-s* 'space behind the barn' beside *klō-ti* 'to spread out'. O.C.Sl. perf. part. *po-znanū* (see above), *danū* 'given' beside *dati*, *sēnū* 'sown' beside *sēti*, like *nes-enū*.

In some of these vowel-stems we may conjecture that forms with *-no-* and forms with *-eno-* *-ono-* once existed side by side. It is no longer possible to ascertain exactly how far this was the case.

§ 68. The Suffixes *-ino-* *-inā-*, *-īno-* *-īnā-*, and *-a*īno-* *-a*īnā-*. These suffixes are found side by side with practically the same meaning. They are used especially to form secondary adjectives, with such meanings as 'made or consisting of', 'springing from', 'belonging to the same kind as' that which is denoted by the noun from which they are derived. They are used very much in the same way as the secondary suffix *-īo-* (§ 63, 2), compare e. g. Lith. *av-ýna-s* with Pruss. *aw-i-s* O.C.Sl. *u-ŕi* 'uncle' beside Lat. *avo-s* 'grandfather', the meaning of these words being 'he who is descended from the grandfather'. Whether it bears any very close relation to the termination of Gr. *ἐαρινός* Lat. *věrnus* and the like (§ 66 p. 144), and what etymological relation subsists between the initial sounds of the three forms *-ino-* *-īno-* *-a*īno-* (cp. Osthoff, Morph. Unt. IV 357) I cannot here decide. The connexion in sense (compare e. g. Gr. *δρυ-ίνο* 'of oak' — Goth. *triv-ein-s* 'wooden' — Avest. *drv-aēn-i-* 'wooden'), combined with their connexion in point of sound, justifies us in discussing the three suffixes together.

1. *-ino-*.

Idg. **deks-ino-* 'dexter': Skr. *dákṣina-s* Avest. *dašina-* O.C.Sl. *desinŭ*, in Lith. extended by a further suffix *deszin-ě* 'the right hand': cp. Gr. *δεξιός* Lat. *dex-ter* O.Ir. *dess* Goth. *taihs-va* 'dexter'; the word is closely allied to Skr. *dákṣ-a-s* 'able, strong'. Skr. *aj-īna-m* 'skin' O.C.Sl. *az-īno* beside Skr. *ajā-s* 'he-goat' *ajá* 'she-goat', Lith. *ožỹ-s* 'he-goat', cp. also Lith. *ož-īni-s* 'belonging to a he-goat'.

In Aryan *-ino-* was not fertile. Forms like Skr. *malinā-* 'spotted' (*mala-m* 'dirt') Avest. nom. *raocah-inō* 'shining' (*raocah-* 'light') can scarcely be classed here: it is most probable that they

only arose in later times through a transference of *-in-*stems to the *o*-declension (cp. § 60 p. 111 f.).

In Greek we have many adjectives, denoting material, origin or kind: *φήγ-ινο-ς* 'beechen' from *φηγός* (: Lat. *fāg-inu-s*), *βύβλ-ινο-ς* 'made of papyrus' from *βύβλος*, *ἄνθ-ινο-ς* 'consisting of flowers' from *ἄνθος* n., *λά-ινο-ς* 'of stone' from *λᾶς*, *χύτρ-ινο-ς* 'of clay, earthen like a pot' from *χύτρος*, *γή-ινο-ς* 'earthen, earthly' from *γῆ*, *ἀέρ-ινο-ς* 'consisting of air, airy' from *ἀήρ*, *ἰχθύ-ινο-ς* 'derived from fish' (e. g. *ἔλαιον*) from *ἰχθύς*, *ἀνθρῶπ-ινο-ς* 'human' from *ἄνθρωπος*, *ἐκείν-ινο-ς* 'of that kind, of the same kind as that' from *ἐκεῖνο*, *πεδ-ινό-ς* 'found in the level country' beside *πεδίο-ν*, *ἀληθ-ινό-ς* 'true' beside *ἀληθής*.

In Latin Idg. *-ino-* can hardly be distinguished from Idg. *-yno-* *-eno-* *-ono-* (§ 66. 67.) Here should be placed adjectives like *fāg-inu-s* (see above), *laur-inu-s*, *junc-inu-s*, *lentisc-inu-s*, which are not very numerous.

Keltic. Perhaps Gall. *Mor-int* pl., name of a seaboard tribe (cp. Lat. *mar-inu-s*), and others to be found in Zeuss-Ebel G. C. 772.

In Germanic the suffix cannot be traced.

Balto-Slavonic.

In Lithuanian adjectives of material, origin, kind, are only rarely formed with *-ina-s*, usually with *-ini-s*, which shows the further suffix *-io-*: *áuks-ina-s* 'golden' from *áuksa-s* 'gold', *sidabr-ini-s* 'silvern' from *sidābra-s* 'silver', *med-ini-s* 'wooden' from *mēdi-s* 'tree, wood', *žem-tné bitis* 'humble-bee' from *žėmė* 'earth', *rūksztinis óbūlas* 'a sour kind of apple' from *rūksztas óbūlas* 'some apple'.

Slavonic *-īnū*: *želěz-īnū* 'of iron' from *želězo* 'iron' (Lith. *gelež-īni-s* 'of iron'), *medv-īnū medov-īnū* 'of honey, like honey' from *medū* 'honey', *zem-īnū* 'earthly' from *zemlja* 'earth'. Further, some of the adjectives in *-īnī* may belong to this section.

2. *-ino-*. The accentuation of the suffix was original, as shewn by the Sanskrit accent and by O.H.G. *magat-īn* beside *magad*.

Indo-Germanic. Cp. Lat. *fīlr-īnu-s*, O.H.G. *bibir-īn* 'of

beaver' beside Avest. *bawr-aēni-s* Lith. *bebr-īni-s* 'of beaver'. Lat. *su-īnu-s*, Goth. *sv-ein* n. 'swine', O.C.Sl. *sv-inŭ* 'suinus'. Lat. *haed-īnu-s*, Goth. *gáit-ein-s* 'of goats, relating to goats'. Skr. *nav-īna-s* 'new', O.C.Sl. *nov-ina* f. 'newly ploughed land, fallow'.

Aryan. In Sanskrit it forms adjectives whose meaning implies relation to something, without specifying the nature of the relation. *śvatsar-īna-s* 'yearlong, yearly' from *śvatsarā-s* 'year'. *prāṣṭ-īna-s* 'belonging to the rainy season, rainy'. *viśvajan-īna-s* 'containing all sorts of people, ruling over all people, blessing all the world' from *viśva-janā-* 'all the world'. *sat-īnā-s* 'genuine' from *sānt-* 'true' (cp. ἀληθινό-ς and O.H.G. *wār-īn*). *kan-īna-s* 'young' from *kand* f. 'young girl, maiden' (cp. O.H.G. *jung-īn*). *nav-īna-s* 'new' from *náva-* 'new'. *añjas-īna-s* 'leading straight on' from *añjasa-* 'direct, immediate'. Extended formations with *-īna-* from adjectives of direction in *-āñc-* are especially common; e. g. *apāc-īna-s* 'leaning back' from *āpāñc-*, *pratic-īna-s* and *pratic-īnā-s* 'turned towards' from *pratyāñc-*.

Greek. Here we have adjectives and substantives derived from adjectives, implying more or less clearly the meaning 'possessing the character or attributes denoted by the original noun'. ἀγγιστ-ίνο-ς 'very near together' from ἄγγιστο-ς. ἐρυθρ-ίνο-ς, 'red mullet' (cp. Mod.H.Germ. *rötlings* 'rudd'). κορακ-ίνο-ς 'a sea fish black as a raven', also 'young raven', from κόραξ 'raven'. κεστρ-ίνο-ς a kind of fish, from κέστρα a kind of hammer, 'pick'. τυφλ-ίνο-ς a kind of snake, from τυφλό-ς 'blind'. γελασ-ίνο-ς 'laughter' from γέλασι-ς; ἐλεγξ-ίνο-ς 'blamer' from ἔλεγι-ς (cp. Goth. *ga-láub-ein-s* 'believing' O.H.G. *huor-īn* 'libidinosus'). πολυποδ-ίνη a small kind of polypus. βολβ-ίνη a kind of bulb. δελφικ-ίνη from δέλφαξ 'swine, sucking pig' (cp. O.H.G. *sw-īn* beside *sū*). χοιρ-ίνη, a kind of sea mussel, from χοῖρος 'sucking pig'.

Italic. The suffix is frequently used to indicate material, origin, kind, that to which anything belongs. Lat. *capr-īnu-s* from *caper capra*, Umbr. *cabriner* gen. 'caprini'. Lat. *equ-īnu-s* from *equo-s*, Umbr. *ekvine* loc. 'equini' (borrowed from the Lat.? I § 431 p. 320). Lat. *bov-īnu-s*, *can-īnu-s*, *vulp-īnu-s*,

columb-īnu-s, *noctu-īnu-s*; *div-īnu-s*, *fūr-īnu-s*, *sūtr-īnu-s*, *sobr-īnu-s* for **sosr-īno-* from *soror* (I § 570 p. 428); *mar-īnu-s*, *vīc-īnu-s* (cp. Lith. *kaim-ýna-s* 'neighbour'), *cisalp-īnu-s*, *peregr-īnu-s*, *Lat-īnu-s*, Umbr. Ikuvinus pl. 'Iguvini', Osc. Nuvkirinum 'Nucerinorum'. A few neuter substantives occur like *terg-īnu-m* 'whip of leather'. Feminine substantives are more numerous, as *capr-īna* 'goat's-flesh' *haed-īna* 'kid's flesh', *su-īna* 'pig's flesh' (cp. O.C.Sl. *bībrov-īna* 'flesh of beaver', Lith. *ož-ėnà* 'goat's flesh'); *sal-īna* 'salt works, salt mine', *molet-īna* 'mill', *pisc-īna* 'fishpond', *cēp-īna* 'onion field', *rāp-īna* 'turnip field' (cp. Lith. *aviž-ėnà* 'oat-field' and Skr. *āúm-īnu-m* 'flax-field' from *úmā* flax); cp. § 154.

Keltic. Here perhaps may be classed Gall. *Tīc-īnu-s* name of a river, ground-form **tēq-īno-*, √ *teq-* 'run, flee, flow' (O.Ir. *techim* 'flee', Lith. *tek-mė* 'small river', O.C.Sl. *tokŭ* 'stream').

In Germanic it forms numerous adjectives denoting material, origin, and quality. Goth. *gulþ-eins* O.H.G. *guld-īn* 'golden' from *gulþ* gold n. 'gold'. Goth. *stāin-eins* O.H.G. *stein-īn* 'of stone' from *stāins* *stein* m. 'stone'. Goth. *airþ-eins* O.H.G. *ird-īn* 'earthen, earthly' from *airþa* *erda* 'earth'. Goth. *bariz-eins* 'of barley'; *þáurn-eins* 'of thorn'; *riqiz-eins* 'dark'. O.H.G. *rindir-īn* 'of cattle'; *swīn-īn* 'suillus'. Goth. *sunj-eins* 'truthful' from *sunji-s* 'true'. O.H.G. *wār-īn* 'truthful' from *wār* 'true' (cp. Skr. *sat-īnā-s*). O.H.G. *huor-īn* 'wanton, dissolute'. Goth. *div-eins* O.H.G. *ēw-īn* 'everlasting'.

-īno- was added to adjectives formed with an *l*-suffix, e. g. *luzzil-īn* from *luzzil* 'little', whence there arose in O.H.G. an independent suffix *-ilīn* *-alīn*, as in *huor-ilīn* 'wanton' (beside *huor-īn*), *luog-alīn* 'spying, lurking'.

The neuters of adjectives of material, used substantively, gave rise to diminutives in Germanic; from the meaning 'belonging to another thing in respect of kind' it is only a short step to that of 'subordination', of 'having its attributes only to a limited extent' (cp. Gr. *-io-v* § 63 p. 128). So Goth. *gáit-ein* O.H.G. *geiz-īn* 'kid' from *gáit-eins* *geiz-īn* 'haedinus', Goth. *gum-ein* 'mannikin' *qin-ein* 'little woman' from *guma* 'man' *qinō*

'woman', O.H.G. *magat-in* A.S. *mæzd-en* 'little maid, girl' from O.H.G. *magad* 'maid, girl'. It is doubtful whether the diminutive sense ever existed in Goth. *sv-ein* O.H.G. *sw-in* 'swine', which strictly belongs to this class of neuters: it would seem that it was isolated in form by the accentuation of the suffix (which in a monosyllable could not but be regarded as part of the root), and so separated from the others in point of meaning.

Balto-Slavonic.

Lith. *kaim-ýna-s* 'neighbour' from *kěma-s* 'precinct, court' (I § 84 Rem. 2 p. 81), cp. Lat. *vīc-īnu-s*. Old neuter forms appear to be represented by *saldum-ýnai* pl. 'sweetmeats' from *saldūma-s* 'sweetness', *kartum-ýnai* pl. 'bitter things' (*kartū-s* 'bitter'), and also by collectives like *aužūl-ýna-s* 'a number of oaks standing together, oak grove' from *áužūla-s* 'oak', *krām-ýna-s* 'thick shrubbery' from *krūma-s* 'bush', *akmen-ýna-s* 'heap of stones' from *aknū* 'stone', *ang-ýna-s* 'nest of adders' from *angl-s* 'adder'. In these latter cases, the special meaning seems to have been developed through the contrast of the idea of the species with that of the individual thing.

In Slavonic we find adjectives of kind and connexion, like *mater-inū* 'motherly, of the mother', *neprijazn-inū* 'devilish, of the devil', *zvěr-inū* 'bestial'. Also feminine substantives like *zvěr-ina* 'flesh of wild beasts', *bībrov-ina* 'beaver-flesh' (cp. Lat. *capr-īna*, Lith. *ož-ėnà*); *vlūč-ina* 'wolfskin', *ovč-ina* 'sheepskin'; *medov-ina* 'an intoxicating drink' from *medū*; *měsēc-ina* 'moonlight' from *měsēcī* (cp. Lith. *mėnes-ėnà*), and others of the same sort, cp. § 154.

3. *-a^zino-* can be traced with certainty only in Aryan and Baltic.

In Sanskrit we find only *sāmidh-ēnā-s* 'relating to firewood' from *sāmidh-* 'firewood'; no doubt, however, it is contained in the suffix *-ēnya-* (an extension of it by *-īo-*): *vīr-ēnya-s* 'manly, heroic' from *vīrā-s* 'man, hero', *prāvṛṣ-ēnya-s* 'rainy' beside *prāvṛṣ-īna-s* (see above, p. 157).

-aēna- is common in Avestic to denote material, origin and the like, as *ayarəh-aēna-* 'of metal, iron' from *ayah-*, *zaran-*

-aena- 'golden' from **zarana-* = Skr. *hiraṇa-* n. 'gold', *er'zat-* *-aena-* 'silvern' from *er'zata-* (cp. Lat. *Argent-īnu-s*), *temaṇh-* *-aena-* 'dark, murky' from *temah-* 'darkness'; neut. *fravāxš-aene-m* 'woodwork, pieces of wood, beams' from *fravāxša-* m. 'branch, twig'. Transferred to the *i*-declension it becomes *-aēni-*, as *zaran-aēni-š*.

Lithuanian. *-ēna-* is common in names of inhabitants, to denote their belonging to or springing from a place, as *Tilž-ēna-s* 'a man from Tilsit (*Tilžė*)'. Subst. fem.: *ož-ēnā* 'goatsflesh', *jaut-ēnā* 'beef', *žas-ēnā* 'gooseflesh' (cp. Lat. *capr-īna*, O.C.Sl. *zvěr-ina*); *aviž-ēnā* 'oat-field', *rug-ēnā* 'rye-field', *mēž-ēnā* 'barley-field' (cp. Lat. *cēp-īna*); *mėnes-ēnā* 'moonlight' from *mėnũ* 'moon' (cp. O.C.Sl. *měsēc-ina*), and other examples.

Remark. It is a point for further investigation whether Lat. *aliēnu-s*, *terrēnu-s* belong to this group. The Slavonic adjectives of material in *-ēnũ* like *dřev-ēnũ* 'wooden' *olov-ēnũ* 'lead' must in any case be left out of consideration, since the change of *-jē-* to *-jā-*, as in *droždijanũ* 'of yeast' for **droždij-ēnũ* proves that their *-ē-* represents Idg. *-ē-*, see I § 76 p. 66.

§ 69. The Suffix *-tno-* *-tnā-*, *-tyno-* *-tynā-*.

1. This appears in Sanskrit, Latin, Lithuanian, (and Greek?) in adjectives formed from adverbs of time, and in Sanskrit also in some cases from stems with similar meaning.

Sanskrit. From adverbs: *pra-tnā-s* 'former, old' from *prā* 'before', *nū-tna-s* *nū-tana-s* 'present' from *nū* 'now', *sanā-tāna-s* 'not transient, constant, lasting' from *sānā* 'from the beginning', *prātas-tāna-* 'in the morning, early' from *prātāh* 'early', *divā-tana-s* *divā-tāna-s* 'diurnus' from *dīvā* 'by day', *cirān-tana-s* *cirān-tāna-s* 'coming from olden time' from *cirā-m* 'long ago', *śvas-tana-s* 'of to-morrow' *hyas-tana-s* 'of yesterday'. Formed from stems: *sand-tna-s* beside *sanā-tāna-s*, *cira-tnā-s* beside *cirān-tana-s*.

Greek. *ἐπε-ταρό-ς* 'lasting for ever'? The etymology of the word has not been satisfactorily explained.

Latin. *diū-tinu-s*, *prīs-tinu-s*, *crās-tinu-s*, *sērō-tinu-s*, *prīmō-tinu-s*.

Lithuanian. *dabar-tina-s* 'present' from *dabār* 'now'.

2. Further, it is a primary suffix in Aryan, Latin and Balto-Slavonic, in participles and infinitives, being probably an extension of *-to-* (§ 79) by a secondary suffix *-no-* (cp. O.C.Sl. *-enĩnũ* beside *-ĩnũ*).

Old Persian shows infinitives in *-tanaiy*, as *car-tanaiy* from *kar-* 'do, make', *katanaïy* (read *kantanaïy*, see I § 197 Rem. p. 166) from *kan-* 'dig'; with these Persian infinitives Bartholomae connects Avest. *aiwi-šdipnē* 'for dwelling in'. To these should no doubt be added Skr. *cyāu-tnā-m* 'preparation, undertaking' Avest. *šyao-pna-* m. 'deed, work' beside Skr. *cyāv-a-tē* 'bestirs itself, moves', perhaps also Skr. *pāt-tana-m* 'city', orig. 'stronghold', compare *pad-* in *pi-bd-anā-* 'standing fast, firm', cp. also Lat. *op-pid-u-m*¹).

In Italic *tno-* appears in the form *-ndo-* after vowels,²) in the gerund and gerundive, as **piā-tno-*, Lat. *piando-*, Umbr. *pihaner* 'piandi' Osc. *úpsannam* 'operandam' (for the assimilation of *-nd-* to *-nn-* *-n-* in Umbr.-Osc. see I § 506 p. 371). Lat. *dando-* for **da-tno-*, *im-plendo-* for **-plē-tno-*. So *-bundo-* in *vagābundus tremebundus* etc. for **-fū-tno-* = Lith. *bū-tina-s*, cp. *vagā-bor*. *secundo-* for *secū-tno-*, cp. *secū-tu-s* (J. Schmidt, *apud* Bersu, *Die Gutturalen und ihre Verbindung mit v im Lat.* p. 134), *rotundus* for **rotō-tno-* from a verbal stem *rotō-* 'to rotate'. Further, we have the group of forms in *-cundu-s*, as *rubi-cundu-s*, *irā-cundu-s*, *fā-cundu-s*, *fē-cundu-s* for **-cō-tno-*, derived from adjectives in *-co-*, such as **rubico-* (whence *rubicāre*, *Rubicō*) etc. With the forms in *-ō-tno-* compare *aegrō-tu-s* from *aegro-*, Gr. *κωρω-ρό-ς* and the like. The change to *-ndo-* was impossible in forms coming from verbal stems which ended in a consonant (e. g.

1) In Greek only a few uncertain examples have survived, e. g. *ῥέντινο-ς* *ἄντρομενο;* (Hesych.), which may perhaps be identified with Lith. *dēktina-s* (✓ *dhegh-*).

2) Cp. Lat. *pandō* for **patnō*, beside *pateō*, and *tendō*, Umbr. *ostendu* 'ostenditō', for **te-tn-ō*, ✓ *ten-*. That the *d* of *tendō* is not the 'root-determinative' *d* (*dh*), as in *fren-dō cū-dō clau-dō*, is shewn by *ten-tu-s* contrasted with *fre(s)su-s*, *in-cūsū-s clausu-s*. This 'determinative' was in fact used to form not present stems but verbal stems. *tensu-s* was formed later by analogy.

Brugmann, Elements. II.

**vectno-* or **vecten-* = Lith. *vėsztina-s*, beside *vehō* Lith. *vežū*), and this gave rise to a variation in form, which was removed by a process of levelling; on the analogy of the relation of *piando-* to *piāns piantis*, of *dando-* to *dāns dantis*, of *im-plendo-* to *im-plēns -plentis* etc., *ferēns* produced a gerund-stem *ferendo-*, *faciens* the stem *faciendo-* and so on. The Umbr. *an-ferener* 'circumferendi' makes it probable that this development was complete in proethnic Italic. The Latin by-forms with *-o-* (*-u-*) like *ferundo-* *faciundo-* *eundo-* must be explained as imitations of the variation *-ent-* *-ont-* in the present participle, as e. g. in *iēns euntis*, *flexuntēs* and the like (§ 126).

Lith. *Participia necessitatis* in *-tina-s*. *sūk-tina-s* 'torquendus' beside inf. *sūk-ti*. *jėškó-tina-s* 'quaerendus' beside *jėszkó-ti*. *minė-tina-s* 'memorandus' from *minė-ti*. *vėry-tina-s* 'credendus' from *vėry-ti*. Without the implied meaning of necessity we have *bí-tina-s* 'being, remaining, actual' from *búti* 'to be': Lat. *-bundu-s*. In Slavonic we have *-tino-*, an adjectival suffix, e. g. *pri-jěťnū* 'pleasant' (we also find *-enino-*, as *ne-iz-d-rečenñū* 'inexpressible').

There was therefore in Indo-Germanic a verbal adjective in *-tno- -tyno-*, whose neuter was used as an abstract substantive (*nomen actionis*). The adjectival meaning appears in Latin and Lithuanian, the substantival in Old Persian and Latin. Cp. § 158.

Remark. Compare the Author, 'Der Ursprung der lat. Gerundia und Gerundiva', American Journal of Philology VIII (1887) p. 441 ff. In his recently published dissertation 'Die Etymologie der sogen. Gerundivformen' (Königsberg 1888), A. Döhring connects the Latin *-ndo-* forms with the Gr. nouns in *-ανθο-* *-ινθο-* *-υρθο-* *-ορθο-*, as *ἄκανθο-* *ἀγινθο-*, and accordingly argues for an original Idg. *-ndho-*. But besides the fact that these Gr. words show no connexion in meaning with the Lat. gerund and gerundive, the Umbr.-Osc. forms with *-nn-* (*-n-*) can hardly be reconciled with this theory. By the phonetic laws hitherto discovered in the Italic dialects the forms in *-nno-* can be referred only to pr. Ital. *-ndo-*, not to *-npo-*. The most recent theory is that of L. Havet (Mém. de la Soc. de lingu., VI 6 ff.) who identifies *ferundu-s* with Gr. *φερόμενο-*; from **feromeno-* by dissimilation he would derive a supposed form **feromēdo-* (what of *ferimini?*), from this **feromdo-* **ferondo ferundo-*; which is simply incredible.

§ 70. The Suffix *-tvaná-* in Sanskrit and *-συνο-* *-συνᾱ-* in Greek¹⁾.

These suffixes are no doubt rightly regarded as very closely connected.

Skr. *-tvaná-* (neut.) is a secondary suffix having the same meaning as *-tvá-* (§ 61); as *vasu-tvaná-m* beside *vasu-tvá-m* 'riches', *pati-tvaná-m* 'married state', *martya-tvaná-m* 'the manner of men'. In Avestic *-ḫwana-* is primary in *a-stao-ḫwane-m* 'praise, guerdon'.

Gr. *-συνο-* is secondary in adjectives like *δουλό-συνο-ς* 'serving', *γηθό-συνο-ς* 'glad, joyful', *θάροσυνο-ς* 'confident' for **θαρσο-συνο-ς* (I § 643 p. 482), and in substantives like *δουλο-σύνη* 'service', *κλεπτο-σύνη* 'thievery', *μνημο-σύνη* 'memory' (cp. § 158). The ending *-ο-συνο-* became general, whence we have *μαντοσύνη* from *μάντι-ς*, *θεμιστ-οσύνη* from *θέμις*, *ιερωσύνα* (neut. pl.) and *ιερωσύνη* for **ιερη(F)-ο-* from *ιερής* (Wackernagel, Philol. Anzeiger 1886 p. 73 f.).

Remark. It must be confessed that the phonetic relations of the Greek and Sanskrit suffixes are not clear, since *-συνο-* cannot be regularly derived from **τυνο-* (which would be related to Skr. *-tvana-* as *ὑπνο-*: Skr. *svápna-s*, an Indo-Germanic variation of ablaut). Should we suppose a doublet in Greek, **-τφενο-* beside **-τυνο-*, and that the *σ*-sound which was regularly developed in *-τφενο-* (I § 166 p. 147, § 489 p. 361) afterwards invaded **-τυνο-*? Op. Att. *σύ* for *τύ* because of *σέ*, Hom. *πίσυρες* beside New-Ion. *τέσυρες* (Lith. *ketveri*), G. Meyer Gr. Gr.² p. 258, Osthoff Paul-Br. Beitr. XIII 425. Or may we assume for Skr. *-tvana-* and Gr. *-συνο-* a common ground-form *-τυ-ηνο-*? Cp. Gr. Ion. *οὐρανός* for **φορφανο-* and Skr. *vāruṇa-*, for which von Fierlinger (Kuhn's Ztschr. XXVII 475) assumes **γορυηνο-* as the common ground-form (here, indeed, the relation of the Greek and Sanskrit forms would be exactly the reverse); add Skr. *catur-thá-* and Lith. *ketviřta-s* for **qetvř-to-* (I § 155 p. 140).

§ 71. The Suffix *-mno-* *-mnā-* (*-μῃνο-* *-μῃνᾱ-*?) and *-meno-* *-menā-*, *-mono-* *-monā-*²⁾.

In proethnic Indo-Germanic, this suffix formed middle (passive) participles from tense-stems containing the thematic

1) Th. Aufrecht, Das Affix *συνος, συνη*, Kuhn's Ztschr. I 481 ff.

2) Bechstein, De nominibus suffixo *mino* (*mno-*) instructis, Curtius' Stud. VIII 378 ff.

vowel, cp. pres. Skr. *bōdha-māna-s* Gr. *πενθό-μενο-ς*, fut. Skr. *bhōtsyā-māna-s* Gr. *πενσό-μενο-ς*, from *bheydh-*, 'be awake, aware'. We find it in Aryan occasionally, but in Greek universally extended to non-thematic stems, which originally had *-yno-* *-eno-* *-ono-*; see § 65—67 and observe the Remarks on pp. 141 and 152.

It is now impossible to trace the original distribution of the forms which differ in their grade of Ablaut.

In the Umbro-Oscan dialects, and in Balto-Slavonic, *-mo-* appears with a similar function: we are hardly justified in regarding this as a regular phonetic variant of *-mno-* (§ 72, I p. 166).

Remark. Sometimes it is difficult to decide whether a particular form contains this suffix or a later extension of *-men-* by means of *-o-* *-ā-*, as must certainly be assumed in e. g. Avest. *airya-mana-* beside *airya-man-*, Gr. *αἰρυν-μενο-ς* beside *δνομα* (§ 117), *ποτ-μνη* 'herd' beside *ποι-μῆν* 'herdsman', *ἡγε-μύνη* 'leader' (f.) beside *ἡγε-μύνη*, Lat. *colu-mna* beside *colu-men*, Goth. *na-mna-* (dat. pl. *namna-m*) beside *namō*. Cp. § 65 Rem. p. 139.

Aryan.

In Sanskrit only *-māna-* occurs. Pres. *bhāra-māna-s* beside indic. mid. *bhāratē* (*bhar-* 'bear'), *juṣā-māna-s* beside indic. mid. *juṣā-tē* (*juṣ-* 'taste, enjoy'), *kriyā-māna-s* beside indic. pass. *kriyā-tē* (*kar-* 'make'). Fut. *yakṣyā-māna-s* beside indic. mid. pass. *yakṣyā-tē* (*yaj-* 'revere'). The Ved. perf. part. *sasṛ-mānā-s* beside *sasr-ānā-s*, from indic. med. pass. *sasr-ē* (*sar-* 'flow') is unique.

In Avestic we find *-mna-* and *-mana-*; the latter should no doubt be referred rather to *-myno-* than to *-meno-*, since the forms vary merely in accordance with the requirements of the metre. Pres. *yaza-mna-* beside indic. mid. *yazaitē* (*yaz-* 'revere, praise'), *bar'ze-mna-* *bar'ze-mana-* 'being great or high', *añha-mana-* beside indic. mid. *añheitē* = Skr. *āsya-tē* I § 558 p. 415 (*ah-* 'throw'), *vaēdaya-mna-* beside indic. mid. (caus.) *vaēdayeitē* (*vid-* 'know', causal 'make to know, show'). Fut. *var'sya-mna-* beside indic. mid. pass. *var'syeitē* ground-form **uerk-sje-tai* I § 401 p. 296 f. (*var'z-* 'work'). Sometimes also in non-thematic stems, as *saya-mna* beside *say-anu-*, from indic. mid. *sae-tē* (*say-* 'lie').

Greek. As a living participial suffix only *-μενο-* occurs. Pres. φερό-μενο-ς beside indic. mid. pass. φέρε-ται (*φερ-* 'bear'), φιλέό-μενο-ς φιλούμενο-ς beside indic. mid. pass. φιλέται φιλεῖται (*φιλέω* 'I love'); side by side with these we find Delph. Locr. καλείμενο-ς Arcad. ἀδικήμενο-ς, and similar forms elsewhere, whose ending presupposes a form **-ι-με-μενο-ς*. Fut. δωσό-μενο-ς beside indic. mid. δώσε-ται (*δω-* 'give'). *-μενο-* also established itself in all non-thematic tenses; contrast e. g. pres. τιθε-μενο-ς beside indic. mid. pass. τίθεται with Skr. *dádḥ-āna-s* (✓ *dhē-* 'set, lay'), perf. γεγευμένο-ς for **γεγευσ-μενο-ς* beside indic. mid. pass. 1. s. γέγευ-μαι with Skr. *juḥuṣ-ānā-s* O.H.G. partic. *-kora(n)* (✓ *gēus-* 'taste'). The accentuation in the perfect- (Att. -μένος) was no doubt originally *-μενός*, see I § 676 p. 542 f.

The form *-μνο-* (cp. the last Remark) perhaps occurs in certain formations no longer felt to be participial, as βέλε-μνο-ν 'missile' (τὸ βαλλόμενον) beside βέλος, στά-μνο-ς 'crock' beside ἵσσημι 'I place'.

Italic. In Latin we must refer to this suffix the ending of the 2. pl. *-minī*, as *legi-minī* (sc. *estis*) = λεγόμενοι. The omission of *estis*, which *a priori* would be somewhat remarkable, is easily explained if (with Wackernagel, Verhandl. der 39. Philologenversammlung p. 281 f.) we compare the imperative form *legiminī* with the Greek infinitive λεγέμεν-αι (§ 117); the indic. *legiminī* representing both λεγόμενοι and λεγόμεναι, caused the imperat. *legiminī* to be used only as plural and as mid.-pass.; so conversely, when *legiminī* representing λεγόμεναι had been so established in the imperative system it caused the omission of the copula in the indicative, *-minī* being regarded as the ending of the 2nd. pers. The suffix occurs also in *fē-mīna*, i. e. 'she who suckles' (cp. Gr. θή-λυ-ς 'giving suck, female'). *clēmēns* according to Osthoff (Wölfflin's Archiv IV 463) came from **clēmēnos* for **clei-e-meno-s*, cp. *-clīnō*: Skr. *śrāya-māṇa-s*. It is doubtful whether this old Lat. *-meno-* was originally *-μνηνο-*, *-meno-*, or *-mono-*.

-mno- is seen perhaps in Lat. *alumnū-s*, *Vertūmnu-s*, *Volumnu-s* and similar forms (cp. the last Remark).

Pruss. *po-klausī-mana-s* (ī) part. 'becoming heard' beside Lith. *klausý-ti* 'to hearken' is the only form of this kind in the Baltic dialects.

§ 72. The Suffix *-mo- -mā-, -ṃmo- -ṃmā-*.

There are three classes of forms:

1. *-mo-* occurs as a participial suffix in Umbro-Samnitic and in Balto-Slavonic, with the same meaning as *-meno-* (§ 71). It may be related to the *-mo-* in adjectives like Avest. *tū-ma-* 'strong', Gr. *θερ-μός* Lat. *for-mu-s* 'warm' (see below, 3). At the same time it is perhaps a possible alternative to refer it to *-mno-* (cp. I § 219 p. 187).

In the above-named Italic dialects, the suffix is found in imperative forms like Umbr. *persnih-mu* 'precamino, supplicato' Osc. *censa-mu-r* 'censemino'.

In Balt.-Slav. *-mo-* is a living suffix in the pres. part. pass., in Lith. in the fut. part. pass. also, though this is now obsolete. In Pruss. we have *-mana-* instead; see § 71.

Lith. pres. *vėža-ma-s* 'being or capable of being carried', beside the indic. *vežù* 'veho', *jója-ma-s* beside *jó-ju* 'I ride', *jėszko-ma-s* beside *jėszkau* 'I seek' (1. pl. *jėszko-me*). Fut. *vėszī-ma-s* *jósi-ma-s* *jėszkósi-ma-s* beside indic. *vėszīu* (ground-form **uėgh + sīð*) *jó-siu* *jėszkó-siu*.

O.C.Sl. *vezo-mŭ* beside indic. *veza* 'veho', *znaje-mŭ* beside *zna-jā* 'I know', *chvali-mŭ* beside *chvalja* 'I praise' (1. pl. *chvali-mŭ*).

2. *-mo- ṃmo-* is a superlative suffix in words denoting number, rank, order in space and time, and the like. This suffix is the second element in *-tṃmo-* (§ 73). The corresponding comparative suffix is generally *-ero-*, as *-tero-* beside the superl. *-tṃmo-* (§ 75). A possible derivation is suggested in the Remark on p. 167.

Indo-Germanic. **septmó-* (**sepdmó-* **sebdmó-*? see I § 469 p. 345) *sept-ṃmó-* 'septimus': Skr. *saptamā-s* Gr. *ἑβδομο-ς* (see under Greek) Lat. *septimu-s* O.Ir. *sechtm-ad* Lith. *sėkma-s* Pruss. *septma-s* O.C.Sl. *sedmy-jŭ*; similarly **dekṃmó-* 'decimus' (see under Aryan) and **oktmó-* **oktṃmó-* 'octavus' (see under Balto-Slavonic). **up-mó-* **up-ṃmó-* 'uppermost, highest': Skr. *upaup-s*,

Lat. *summu-s* for **s-up-mo-s* (for the *s-* see I § 568 p. 425), A.S. *ufem-est*, cp. comparative Skr. *úpara-* Lat. *s-upero-*. **medh-ḡmó-* 'midmost' beside **medh-ḡo-s* 'medius' (§ 63, 3 p. 132): Avest. *maḍema-* 'midmost', Goth. *miduma* subst. f. 'middle' (cp. § 158) O.H.G. *metamo metemo* 'mediocris'; beside these are forms which have been readjusted to suit the parallel **medhḡo-*, Skr. *madh-yamá-s* 'midmost' and Goth. *midjuma-* or *midjuman-* in *midjun-gards* 'the globe' for **midjum(a)-gards* (cp. § 40 p. 69), O.H.G. *mittamo* m. 'middle' (cp. O.H.G. *mittil* A.S. *middel* beside the more archaic O.H.G. *metat* 'medius' and Gr. *νέτατος* beside *νέατος*, 'novissimus, extremus' from **νεφό* **νεφο-*).

Remark. **septḡmó-* may be related to the cardinal **septḡn* as the Gr. *πιαρός* to *πῖα*, **udró-* (Skr. *udrá-s* etc.) to *ὑδωρ* (§ 74). The ordinal numeral appears to have been formed by the addition of -ó-, cp. Lat. *nōnu-s* from **neḡḡnó-* from **neḡḡ* (I § 232 p. 197, § 233 p. 198, § 249 p. 205). It is possible therefore that the superlative suffix -mo- was taken bodily from the the ending of the numerals. Cp. the suffix -to-, which serves in the same way to form both ordinal numerals and superlatives, § 81.

Aryan. Skr. *daśamá-* Avest. *dasema-* 'decimus': Lat. *decimu-s* O.Ir. *dechm-ad*, common ground-form **deḡḡmó-*. Skr. *ap-amá-* Avest. *ap-ema-* 'most distant, last' beside Skr. *ápa* 'from, away'. Skr. *av-amá-* 'lowest, next' from *áva* 'off, down'. *adh-amá-* 'undermost' (ground-form **ḡdhḡmó-*) beside *adhás* 'below': the relation of this word to Lat. *infimu-s* and *inferu-s* is not clear; see Ascoli, Sprachwissensch. Briefe 83, and above I § 389 Rem. p. 292¹⁾. *par-amá-* 'furthest, last, best' from *pára-* 'further'.

In Greek it is rare. *ἑβδομο-ς* 'septimus' and Heracl. Delph. *ἑβδομηκοντα* for **ἑβδομ-* with anaptyctic -ο- and -ε- (see I § 626 p. 470): O.C.Sl. *sedmy-jŭ* etc., see p. 166 above. *πρό-μο-ς* 'foremost' from *πρό* 'before': cp. Umbr. *promom*, Goth. *fra-m*. Perhaps

1) In this Remark there is an error in the translation. The second sentence should read: "we might regard the *f* as regular in *in-fundō con-fundō* and thence substituted for *h* in the uncompounded verb, if there were more evidence for the suggestion that the word *infumus infimus* arose from an old phrase **in fumo* 'in humo', etc." [i. e. if we could prove that pr. Ital. *χ* in Latin passed through the stage *f* on its way to *h* initially, and that the compounds *infundo confundo infimus* were formed just at that period.]

also πύμ-ατο-ς 'last' (cp. ἐβδόμ-ατο-ς beside ἐβδομο-ς, τρίτ-ατο-ς beside τρίτο-ς), although its base is certainly obscure (in J. Schmidt's derivation from ἄπο, as though it came from *(α)πυ-μο- (Kuhn's Ztschr. XXVI 24) the *v* presents some difficulty).

Italic. Lat. *decimu-s* Osc. dekmannioís 'decumanis': Skr. *daśamá-* and similar ordinals (see p. 167 above). Lat. *summu-s* Umbr. *somo* 'summum' pr. Ital. **s-up-mo-s*: Skr. *upamá-s* 'uppermost, highest'. Lat. *prīmu-s* Pelign. *pris-mu* 'primo' or 'primum' beside *prius*. Lat. *īmu-s* Osc. *imad* abl. 'ima'; the word no doubt belongs to O.Ir. *is* 'below' *ichtar* 'the lower part'¹). Lat. *min-imu-s*, *plūr-imu-s*, *brūma* (beside *brevi-s*); formed from adverbs in *nē*, *extrē-mu-s* *postrē-mu-s* *suprē-mu-s*. Osc. *pos-mo-m* 'postremum', cp. Lat. *pōne* for **pos-ne*. Umbr. *prumum promom* 'primum': Gr. πρῶ-μο-ς Goth. *fra-m*; *šimu šimo* 'ad citima, retro'. Umbr. *nuvime* adv. 'nonum', a later formation like Skr. *navamá-s* and O.Ir. *nōma-d* 'nonus'. Umbr.-Osc. *nesimo-* 'proximus' for **necsimo-*, no doubt connected with Lat. *nectō nexus*: O.Ir. *nessam* 'next' beside the comparative *nessa*.

-ḡmo- is probably also to be traced in Lat. superlatives like *pulcerrimu-s* *celerrimu-s* *facillimu-s* *simillimu-s* (Danielsson, Pauli's Altital. Stud. III 153). **pulcr-is-emo-* **facil-is-emo-* (-is- is the weakest form of the comparative suffix, cp. *pulcr-ior* *facil-ior*) became **pulcr-semo-* **pulcersimo-* and **facil-semo-* **facil-simo-* (I § 633 p. 473 f.) and then *pulcerrimo-* *facillimo-* (I § 571 p. 429).

Old Irish. The ordinals in -ḡmo- appear to be extended by -eto-, as *sechtmad* 'septimus' for **septḡmmeto-s*, *dechmad* 'decimus' for **dekḡmmeto-s*, undoubtedly through the influence of *cōiced* 'quintus' *sessad* 'sextus' (§ 81); similarly in the other Keltic languages, e. g. Mid.Cymr. *seithuet* 'septimus'. Cp. Gr. ἐβδόματο-ς on the analogy of δέκατο-ς, etc. *rem-* 'ante, prae', which has lost an initial *p* (I § 339 p. 268): Goth. *fruma* Lith. *pirma-s* 'primus', common ground-form **pḡ-mo-*.

1) See Loth, Mém. de la Soc. de lingu. V, 231 f. and d'Arbois de Jubainville, ib. VI 55 f. It is better to refer it to **ik-mo-* or **ig-mo-*, than to **iks-mo-*, from which we should expect in Osc. *ismo-*.

In Keltic this suffix was regularly used to form the superlative. In O.Ir. *nessam* 'next', and some other forms, *-am* corresponds to Lat. *-imo-*; see above. On the other hand, *-em* cannot be identified with *-ṡmo-* in e. g. *dilem* 'pleasantest' (comp. *diliu* pos. *dil*) *coemem* 'fairest' (comp. *coimiu* pos. *coem*) *toisigem* 'first, most excellent' (comp. *toisigiū* pos. *toisech*) *lugem* 'smallest' (comp. *laigiū*) *ḡam* for **ḡ-em* 'youngest' (comp. *ḡa*) *mām* for **mā-em* 'greatest' (comp. *māo*). Probably Thurneysen is right in comparing these forms with Latin superlatives like *pulcerrimu-s* (see above); **dilis-ṡmo-* became **dilisamo-* **dilihū(o)-*, finally *dilem*¹). To such superlative forms the same *-em* was sometimes added a second time, as *uaislimem* 'highest' beside the comp. *uaisliu* pos. *uasal*, cp. Gr. *-τ-αρο-ς* § 81.

Germanic. In protoethnic Germanic this suffix passed over into the *n*-declension in adjectives; the Gothic feminine ended in *ei* gen. *-eins*, as in the comparatives in *-iz-a* (see §§ 110, 135). In Gothic the forms in *-uma* also acquired a comparative meaning, so that e. g. *inn-uma* was sometimes equivalent to the O.H.G. *inn-ero* (cp. de Saussure, *Mélanges Renier* 383 ff.). Goth. *fru-ma* 'prior, primus' (whence *frum-ists* 'primus'), O.H.G. *fruma* f. 'use, advantage': O.Ir. *rem-* Lith. *płr-ma-s* common ground-form **př-mo-*; contrast with these Goth. O.H.G. *fra-m* adv. 'forwards', further': Gr. *πρό-μο-ς*. Goth. *aúh-uma* 'higher, highest', compare *aúh-m-ists* and *aúh-um-ists* 'highest', A.S. *ýnrest* = Goth. *aúhmists*. Goth. *inn-uma* 'inner, innermost' A.S. *inn-em-est* 'innermost'. Goth. *spēd-um-ists* 'latest, last' beside *spēd-ists*. Goth. *hleid-uma* 'left, ἀριστερός', compare no doubt O.H.G. *(h)lī-ta* 'slope, declivity' Gr. *κλί-τύ-ς* 'hill'. A.S. *sīð-em-est* 'latest' beside *sīð-est*, *laet-em-est* 'latest'; *nord-m-est* 'northernmost' *sūð-m-est* 'southernmost'.

1) "The loss of an *s* is indicated both by the medial *h* of O.British *hinham* 'eldest' for **senisam-*, and later **heniham-* (= Ir. **sinem*), and by the retention of the older tenuis before this suffix in Cymric, as in the superlative *rhataf* for **rat-ham* beside the pos. *rhad* 'cheap' Whether Gall. *Belisama* (a goddess) and *Trigisamo-* (the river 'Treisam') belong to this group is doubtful." Thurneysen.

In Balto-Slavonic the suffix is rare. Lith. *āszma-s* Pruss. acc. *asma-n* O.C.Sl. *osmy-jŕ* 'octavus' pr. Balt.Slav. **oš(t)-mo-*: Skr. *aṣṭamā-* Avest. *ašte-ma-* O.Ir. *ocht-m-ad*: this word, in spite of the agreement of several languages, can scarcely have been formed until after the separation of the Indo-Germanic families, as was Skr. *navamā-* Umbr. *nuvime*. Lith. *pīr-ma-s* Lett. *pīr-mā-is* Pruss. *pīr-mois* 'primus': O.Ir. *rem-* Goth. *fruma*.

3. *-mo-* with other functions. It forms substantives, and adjectives. There are only a few groups of words which by their parallelism in form and meaning constitute a special class, as e. g. the Greek abstract substantives in *-μός*. The substantives are generally masculine, more rarely feminine, and the neuter very seldom appears.

-mo- is used as a denominative suffix in several languages, but this use is on the whole rare and no doubt a secondary development.

Where the suffix is primary, the root syllable, from the very earliest period, varies between the weak and the strong grade of ablaut; in the latter case, in roots of the *e*-series, the *o*-form seems to have been regular in the proethnic and later periods. It is common to find forms of the strong and weak grade in the same word, e. g. Gr. *λί-μός*: *λοι-μός*, Skr. *dhū-mā-s*: O.H.G. *tou-m*, Gr. *χῦ-μός*: Skr. *hō-ma-s*, Skr. *idh-mā-s*: Avest. *aēs-ma-* (I § 94 p. 88); this indicates an original variation of ablaut within the same paradigm (cp. Osthoff, Morph. Unt. IV 127 f.).

In a large number of cases *-mo-* is closely connected with *-men-* (§ 117). In *e*-roots, where both suffixes are found side by side and the root-syllable has *e*, as in Gr. *κενθ-μός* beside *κενθ-μῶν* 'hiding-place', O.C.Sl. *zi-ma* 'winter' beside Gr. *χει-μῶν* 'storm, winter', the presumption is in favour of the greater antiquity of the *men*-formation. In many instances there has obviously been a confusion of the two. In compound words, the *mo*-form was substituted for *men-* both in the Indo-Germanic period and later (§ 12 p. 27)¹.

1) For this process of substitution in the use of the suffixes a reference may now be added to J. Wackernagel, Kuhn's Ztschr. XXX 296 ff.

Idg. **dhū-mó-* 'ebullition, smoke': Skr. *dhūmá-s*, Gr. *θῦμός*-s ('spirit, passion'), Lat. *fūmu-s*, Lith. pl. *dūmai*, O.C.Sl. *dymū*, add O.H.G. *tū-mōn* 'to turn one's self in a circle'; beside this we have **dhoṃ-mo-* in O.H.G. *toum* 'vapour, fume'. **tu-mo-* **tū-mo-* from *✓tey-* 'swell, grow strong': Skr. redupl. *tū-tumá-* Avest. *tūma-* 'strong', Mod.Cymr. *twf* 'vigor' (a borrowed word?), O.C.Sl. *tūma* f. 'great number' (there are many extended formations from the *-mo-* stem, as Skr. *tūm-ra-* 'fat, strong', Lat. *tumēd*, O.H.G. *dūmo* m. 'thumb'); with these compare **toṃ-mo-* in O.H.G. *thaum doum* 'vapour', which was confused with *toum*. **ǵ-mó-* 'arm, something bowed or bent': Skr. *īrmá-s* Avest. *ar̥ma-* Armen. *arm-ukn* Lat. *armu-s* O.H.G. *aram* O.C.Sl. *ramo*. **ǵhi-mo-* **ǵhi-mā*: Skr. *himá-s* 'cold' *hí-mā* 'winter' Avest. *zima-* m. 'winter', Armen. *j̄m-er̄n* (gen. *j̄m-eran*) 'winter' for **j̄im-er-* (for the suffix compare *amair̄n* 'summer'), Gr. *δῖος-χιμός*-s 'exposed to dangerous storms, fearful', Lat. *bīmu-s* for **bi-hīmu-s* (I § 510 p. 374 § 604 p. 458); the vocalism of Idg. **ǵheṃ-men-* (Gr. *χουμῶν*) appears in Lith. *žēmà* O.C.Sl. *zima* 'winter'; and we can trace the form **ǵhiem-* **ǵhim-* in Avest. *zyd̄*, gen. *zim-d̄* 'winter's frost' Gr. *χιών* 'snow' Lat. *hiēms* (§ 160, 2). **stī-mó-* (cp. Skr. *styā-* 'curdle, thicken', also connected with Goth. *stái-n-s*): Skr. *stīmá-* 'lazy, creeping' *pra-stīma-* 'pressed, heaped', Mid.H.G. *stīm* m. 'bustle, confused mass' O.Icel. *stīm* n. 'wrestling, trouble' (Lith. *stymas* and *styma* 'shoal of moving fish' are no doubt borrowed from Scandinavian, cp. Swed. *stim* 'tumult, shoal of tumbling fish'); Mid.H.G. *stei-m* 'turmoil' shows a stronger form of the root. **ghor-mó-s* (*✓gher-*): Skr. *gharmá-s* 'heat' Avest. *gar̥ma-* 'warm' *gar̥me-m* 'warmth' (see especially I § 78 p. 69, § 445 p. 331), Lat. *formu-s*, O.H.G. *warm* 'warm', Pruss. *gorm-e* 'heat'; beside these, with *e*, Armen. *ferm* 'warm', Gr. *θερμός*-s 'warm' *θέρεμῃ* 'warmth'. **oi-mo-* 'way' (*✓ei-*): Skr. *é-ma-s* 'way, path' Gr. *ὁλμός*-s *ὁλμῃ* 'path, tract'.

For its use as a secondary suffix there seems to be only one example which we can regard as proethnic: Skr. *dru-ma-s* 'tree' Gr. *δρυ-μά* pl. 'wood' *δρυμός*-s 'woodland', beside Skr. *dru-* Gr. *δρῦ-* 'wood'.

Aryan. In Sanskrit it is nearly always masculine. Skr. *sā-mā-m* 'milk, water', *sōma-s* Avest. *hao-ma-* 'sap, soma-drink', from *su-* 'press'. Skr. *iṣ-mā-s* *īṣ-mā-s* 'god of love' Avest. *aēš-ma-m* 'chiding, wrath': cp. Gr. *ἱμερο-ς* 'longing, desire'. Skr. *bhā-ma-s* 'light, sheen' Mod.Pers. *bām* 'light' Avest. *bāmya-* 'shining, clear'. Skr. *tōk-ma-s* 'green stalk of corn' O.Pers. *taumā-* 'family' for **tauxmā-*, cp. Skr. *tōk-man-* n. 'green stalk of corn' (older than *tōk-ma-s*) Avest. *taox-man-* n. 'seed, kernel, offspring'; the O.Pers. *tau-mā-* however should perhaps be explained otherwise, see § 117 under Aryan. Skr. *āj-ma-s* 'path, course' (beside *āj-man-* *j-mān-*, which mean the same): Gr. *ὄγ-μο-ς* 'path' (with prothetic *ō-*?). Skr. *ā-ma-s* *ō-ma-s* 'helper, companion' beside *ō-mān-* 'help, support', compared with *āva-ti* 'he helps'. *bhī-mā-s* 'terrible', cp. Lith. *bái-m-ė* 'fear'. *tig-mā-s* 'sharp'. *ruk-mā-s* 'shining, ornament'. *yudh-mā-s* 'fighter': cp. Gr. *ἰσμετήν* 'fight, battle' from **ύθ+σμε-* (cp. p. 173). *yug-mā-* 'even, forming a pair' neut. subst. 'pair'. *dar-mā-s* (beside *dar-mān-*) 'he who shatters'. *dhār-ma-s* (beside older *dhār-man-* n.) 'order, law, institution'.

It is secondary only in Skr. *dru-ma-* (see above p. 171) and *dyu-mā-* 'clear, shining' from *dyu-* *div-* 'brightness, day'.

Armenian. *arm-ukn* 'elbow', *jm-ērēn* 'winter', *jerm* 'warm', see above under Idg., p. 171.

Greek. *λι-μός-ς* 'hunger' *λοι-μός-ς* 'plague, pestilence': cp. Skr. *srī-ma-s* 'nightly spectre' from *✓slei-* 'hurt'. Substantives with the strong-grade of the root-syllable are not uncommon: *ὄρ-μή* 'onset': Skr. *sār-ma-s* 'flow, flowing' perhaps also O.H.G. *stur-m* 'storm, fight' (*stur-* for *stj-*, cp. I § 580 p. 433 f.); *τόρ-μο-ς* 'what is bored, a hole': O.H.G. *dar-m* O.Icel. *þar-m-r* 'intestine' (i. e. 'that which goes right through the body', or 'the channel through which the food passes'); *φλογ-μός-ς* 'brand' (*φλέγω*); *πλοχ-μός-ς* 'lock of hair' (*πλέκω*); *ὀλ-μο-ς* 'cylindrical body, mortar' (*ἐλύω*); *ὄρ-μο-ς* 'cord, necklace' (cp. *ἔρμα*); *λόχ-μη* 'thicket, bushes' (*λέχος*). Further we have examples with weak vocalism: *κρυμός-ς* 'frost' (for **κρυσ-μο-*, beside *κρυσ-ταίνω*), *ἀρδ-μός-ς* 'drink, drinking-place', *πταρ-μός-ς* 'sneeze'. In forming abstract verbal nouns -μός- was very fertile,

e. g. *μυγ-μός-ς* *μυχ-μός-ς* 'groan' (beside *μύζω μέμικα*), *ἰυγ-μός-ς* 'shriek' (beside *ἰύζω*), *ὀδυρ-μός-ς* 'lamentation' (beside *ὀδύρομαι*), *ἀρπαγ-μός-ς* 'plundering' (beside *ἀρπάζω*), *κηρῶγ-μός-ς* 'calling out' (beside *κηρύσσω* — for the *γ* see I § 486 Rem. p. 359), *μερισμός-ς* 'division' (beside *μερίζω* — for the *-σ-* see below). Feminines of the same kind are: *πυγ-μή* 'fight with fists', *τιμ-μή* 'estimation, honour', *χαρ-μη* 'joy of battle, battle', *ἀκ-μή* 'edge, sharpness', *γνώ-μη* 'intent, opinion', *μνή-μη* 'memory', *ἐπιστήμη* 'science'.

Sometimes we find *-τ-μο-* (cp. *-τ-μεν-* § 117): *ξε-τμός-ς* 'oar' beside *ξέσσω ξρέτης*, *ἐφετμή* 'injunction' beside *ἐφ-έ-της ἐφ-ίημι*, etc., cp. O.S. *brahtum* and the like, p. 175. More frequently *-θ-μο-* (cp. *-θ-μεν-* § 117): *ἀρι-θμός-ς* 'number' (no doubt connected with O.H.G. *rî-m* 'orderly succession, number'), *ἀρ-θμός-ς* 'tie', *στα-θμός-ς* 'standing-place, stall, posts' *στά-θμη* 'plumb-line', *ῥυθ-μός-ς* 'rhythmical motion', *κλαν-θμός-ς* 'crying' *κηλη-θμός-ς* 'bewitching', *μηνι-θμός-ς* 'wrath' etc., cp. *-θ-ρο-* *-θ-λο-* (§ 77).

-s-mo- according to Morph. Unt. I 81. occurs in *δασμός-ς* 'division' beside *δατέομαι*, *ὠσμός-ς* 'push' beside *ὠθίω*, *ἀφλοισμός-ς* 'foam' beside *πέφλοισθα*, *ὀσμῆ* beside older *ὀδ-μή* 'smell', *σχισμός-ς* 'split' beside *σχίζω*, and in substantives in *-ισμός-ς* and *-ασμός-ς* connected with derivative verbs in *-ίζω* *ἀζω*, as *μερισμός-ς* *ἀκοντισμός-ς* *ἐνθουσιασμός-ς*. Yet it may also be assumed (cp. Solmsen Kuhn's Ztschr. XXIX 123) that in such forms there was originally only *-mo-* (which would give us **δατμός-ς* **ὠθμός-ς* *ὀδμή*); that then, where perfect forms in *-σμαι* *-σμεθα* *-σμενο-ς* (the *σ* came from *-σται*, *δέδασμαι* being formed on the model of *δέδασται*) occurred in the paradigm of the verb, the *σ* from these forms took the place of the explosive; and that afterwards, on the analogy of such words, the explosive was replaced by *σ* in other instances (e. g. *ὀδμή*). The occurrence of *-μο-* and *-σμο-* side by side in derivatives of these dental stems led to the substitution of *-σ-* for *θ* in several of the forms in *-θ-μο-* mentioned above, as *ῥυσμός-ς* instead of *ῥυθ-μός-ς*, *δυσμή* instead of *δυ-θμή*, *θεισμός-ς* for (Lacon. and other dial.) *θει-θμός*. Cp. *-σμεν-* § 117.

-mo- is secondary in *δρῦ-μός-* (p. 171), and also in the adjectives in *-μο-ς*, which were derived from *i-*stems; as *φύξιμο-ς* 'protecting, whither one can flee' (from *φύξι-ς* 'flight'), *βάσιμο-ς* 'that can be traversed, safe' (from *βάσι-ς* 'a going'), *λύσιμο-ς* 'that can be ransomed' (from *λύσι-ς* 'ransom'); on the model of these were formed *ἄλκιμο-ς* 'strong', *νόστιμο-ς* 'relating to one's return', *νόμιμο-ς* 'lawful' and others. It occurs also in *ἔτυ-μο-ς* *ἐτήτυ-μο-ς* 'true, genuine' (cp. *ἔτεός* for **ἔτεφο-ς*).

Italic. Lat. *lī-mu-s* 'crooked' *lī-mit-* 'crossway, dividing line, boundary', Osc. *liḿmítú[m]* 'limitum': the Oscan word cannot have arisen from **līzmo-* (cp. *līxula*) which would have become **lismo-* in Oscan, and if this derivation is correct, it must have been borrowed from Latin. Osc. *eg-mo* 'res', stem *eg-mā-*.

Lat. *lī-mu-s* 'grease, slime, mud': O.H.G. *lī-m* 'glue' *lei-m* 'loam'. *fi-mu-s* *fi-mu-m*: no doubt connected with Gr. *θύ-μο-ν* 'scented plant' (see I § 49 p. 41 f.). *ani-mu-s* *ani-ma*: Gr. *ἄνε-μο-ς* 'wind', cp. also O.Ir. *anim*, dat. *anmain*, 'soul'. *fa-ma*: Gr. *φή-μη* 'news, rumour'. *for-ma*: cp. Skr. *dhari-mán* 'figure'. *spūma* for **spoī-mā*: O.H.G. *fei-m* m. 'foam' (cp. § 66 p. 148).

Lat. *dūmu-s* (*dusmo in loco* Paul. Fest.), *rāmu-s* no doubt for **rād-mo-* ground-form **uřd-mo-*, beside *radix*, with other examples. The neuter is rare: *pō-mu-m*, *ar-ma*. There are a fairly large number of feminines: *lī-ma*, *rā-ma* (beside *rū-men*), *rī-ma*, *gem-ma* etc.

-mā- is secondary in *lacru-ma* *lacri-ma*: cp. Gr. *δάκρυ* 'tear'.

Old Irish. *le-m* m. 'elm' ground-form **l-mo-*): Lat. *ul-mu-s*, O.H.G. *el-m* O.Icel *al-m-r* 'elm'. *lā-m* f. 'hand': Gr. *παλά-μη* Lat. *pal-ma* O.H.G. *fol-ma* 'hand, flat hand'. *rī-m* f. 'number', *āram* f. 'number, counting' for **ad-rīmā* (cp. I § 623 Rem. 1 p. 469, § 634 p. 474 f.): cp. O.H.G. *rī-m* Gr. *ἀρι-θμός* p. 173. O.Ir. *gor-m* 'blue' Mod.Cymr. *gwr-m* 'dusky': Skr. *ghṛ-ṇḍ-mi* 'I shine'? (see Curtius Grdz.⁵ 494). O.Ir. *lua-m* 'celox': cp. Lith. *plaū-s-ma-s* 'raft'.

Infinitival *nomina actionis* are formed with *-mā-*; as *cretem* 'faith, believing', *sechem* 'a following'.

Germanic. O.H.G. *bodam* m. 'bottom': cp. Gr. *πυθ-μήν*

'ground, bottom', (cp. Kauffmann, Paul-Braune's Beitr. XII 537). Goth. *hái-mōs* pl. fem. 'villages, market-towns', O.H.G. *hei-m* 'dwelling': Lith. *kė-ma-s* 'village, farm' *kaim-yna-s* 'neighbour'. O.Icel. *strau-m-r* O.H.G. *strō-m* 'stream': we should doubtless add (with orig. *ou*) Lett. *stráu-m-e* f. 'stream', and (with *ū*) Thrac. *Στροβ-μη* a town on the Lissos; compare with these **srey-men-* (§ 117). A.S. *far-m* 'a going, pressing forward' O.H.G. *far-m* 'boat': cp. Gr. *πορ-θ-μός* 'ferry'. O.H.G. *halm* 'stalk' O.Icel. *hal-m-r* 'straw': Gr. *κάλα-μο-ς* 'reed, stalk', Lat. *cul-mu-s*, Lett. *sal-m-s* O.C.Sl. *sla-ma* f. 'stalk'; pr. Germ. **χalmo-* may represent either **kol-mo-* or **kļ-mo-* (I § 306 p. 242 f.). O.H.G. *fadam* m. 'fathom, ulna' A.S. *fathmōs* pl. 'both outstretched arms' O.Icel. *faðmr* 'cord, fathom, embrace': cp. O.Cymr. *etem* 'fathom'. Goth. *dō-m-s* O.H.G. *tuo-m* 'sentence, trial, standing, worth': Gr. *θω-μός* 'stack', from $\sqrt{dhē}$ 'set, place'; beside it we have **dhē-men-* (§ 117).

Goth. *rū-m-s* 'room, roomy' O.H.G. *rū-m* m. 'room': cp. Avest. *rav-ah-* 'road, free way'. O.H.G. *scū-m* m. O.Icel. *skū-m* n. 'foam'. Forms with the 'high' grade of ablaut (o-grade in *-e*-roots) are far commoner. We may add O.H.G. *bar-m* O.Icel. *bar-m-r* 'womb' ('that which bears', $\sqrt{bher-}$); O.H.G. *zou-m* O.Icel. *tau-m-r* 'bridle, rein' pr. Germ. **tauzu-mā-* 'that which pulls or is pulled', $\sqrt{deyk-}$ 'ducere').

A smaller number of forms have *e* in the root syllable; von Bahder (Verbalabstr. 136 f.) assumes that these were originally *men*-stems; as O.H.G. *melm* m. 'dust' beside O.Icel. *mālmr* 'metal' and Lith. *melmū*, gen. *melmeñs*, 'nephritic stone'. Cp. further O.H.G. *atum* A.S. *āthom* 'breath' pr. Germ. **ēþ-ma-* (for the history of the original tenuis in Germanic see Kögel, Literaturbl. f. germ. u. rom. Phil. 1887 no. 3) beside O.Fris. *ēthma* 'breath', Skr. *āt-mān-* 'breath, soul'.

Several instances of *-t-mo-* occur (cp. Gr. *-τ-μο* p. 173), as Goth. *mái-þm-s* A.S. *mē-thom* 'present, jewel' beside Gr. *μοῖ-το-ς* 'thanks, payment', Lat. *mū-tuo-s*, Lith. *maĩ-na-s* 'barter'; O.Sax. *brah-tum* 'noise' beside O.Sax. O.H.G. *braht* 'noise'; O.H.G. *brā-dam* 'vapour, steam, exhalation' beside A.S. *bræð*

f. 'vapour' (cp. Bremer, Paul-Br. Beitr. XI 279); O.H.G. *kra-dam* 'shriek' beside O.H.G. *hano-krat* 'cock-crow' (cp. Bremer loc. cit.); Mid.H.G. *bladem* 'wind' beside O.H.G. *blā-t* 'breath, fulness'.

Remark. The different explanation of the latter forms given by von Bahder, Verbalabstr. 144 does not convince me.

Balto-Slavonic. Lith. pl. *dū-mai* O.C.Sl. *dy-mū* 'smoke': Skr. *dhū-mā-s* etc., see p. 170 above. Pruss. *irmo* 'arm' (perhaps nom. sing. of an *n*-stem, like Lith. -*mā*) O.C.Sl. *ramo* beside *ramę* 'shoulder': Skr. *īr-mā-s* etc., see p. 171 above. Lith. *szāl-ma-s* 'helmet' (Pruss. *salmi-s*): Goth. *hilm-s* O.H.G. *helm* 'helmet', Skr. *śār-man-* n. 'shelter, protection, armour'; may we therefore assume Idg. **kol-mo-* and **kel-men-*? O.C.Sl. *sramū* 'shame': O.H.G. *haram* O.S. *harm* 'insult, outrage'.

Lithuanian. Masculines are rare; *szār-ma-s* 'potash', *at-szlai-ma-s* 'fore-court' (✓ *klei-* 'clinare'). Feminines are more common, as *tar-mā* (also *tarmė*) 'statement', *szar-mā* 'rime, frozen dew', *važ-mā* 'payment of fare'. On the other hand, there are many masculines formed with -*s-ma-*, as *garsma-s* 'call' from **gard* + *sma-* beside *gařsa-s* 'noise' from **gard* + *sa-s* (*gird-mi* *gird-žiū* 'I hear'), *varsma-s* 'the length of a furrow' for **vart-sma-*, *lañk-sma-s* 'bending', *vaļk-sma-s* 'pull, draught', *kaūk-sma-s* 'howl', *rėk-sma-s* 'roar', cp. also -*s-mė* in *drausmė* 'training', Lett. *drāusma* 'threat' beside Lith. *draudžiū* 'I protect, forbid', *bausmė* 'punishment' beside Lith. *baudžiū* 'I punish', *gėsmė* Lett. *d/isma* 'song' beside Lith. *gėd-mi* 'I sing', etc. Adj. *szir-ma-s* Lett. *si'r-m-s* 'grey'.

-*ima-s* -*yma-s* form abstract verbal substantives from any given verb, as *sukima-s* 'a turning' from *suk-ti* 'to turn', *sākyma-s* 'saying' from *saký-ti* 'to say'. How (i. e. from what model) this group of forms took its rise is doubtful; cp. also *jaunima-s* 'the dance of youth, company of young folks' from *jauna-s* 'young', *minkszlma-s* 'soft part of bread' from *minkszta-s* 'soft'.

Secondary: *tóli-ma-s* 'distant' from *tolì* adv. 'afar', *arty-ma-s* 'near' from *artì* adv. 'near'.

The secondary suffix -*uma-s* forms abstract substantives.

This arose in forms like *gražū-ma-s* 'beauty' from *gražū-s* 'beautiful', on the model of which were formed such words as *sausūma-s* 'dryness' from *saūsa-s* 'dry'. By the side of this we find *-umā* used to denote some part of the land, as *lygu-mā* 'a level place' (beside *lygū-ma-s* 'levelness, the being level') from *lygu-s* 'even, level', *sausumā* 'dry place'.

O.C.Sl. *kos-mū* and *kos-ma* 'hair'. *u-mū* 'thought, understanding', no doubt connected with Skr. *av-* Lat. *avēre* and therefore similar in formation to Skr. *ō-ma-s* 'helper' (p. 172). *glu-mū* 'sport, scena' *glu-ma* 'licentiousness'. *-s-mo-* is the suffix in *usmū usma* 'indumentum, corium', if the word is connected with *ob-u-ti* 'to cover the feet'.

§ 73. The Suffix *-tmmo-* *-tmmā-*, forming superlatives. We may analyse it as *-t-ηmo-*, and the second element *-ηmo-* is itself a superlative suffix (§ 72, 2 p. 166 ff.). As a single indivisible suffix, *-tmmo-* must have been rare in the Indo-Germanic period.

-t-ηmo- is linked with the comparative *-tero-* (§ 75) in the same way as *-ηmo-* with *-ero-*, cp. Goth. *af-tuma*: O.H.G. *aftro aftero* and Skr. *ap-amā-s*: Skr. *áp-ara-s* Goth. *afar*, further Skr. *ut-tamā-s*: Skr. *út-tara-s* Gr. *ύσ-τερο-ς* and A.S. *ūt-em-est* (an extension of an original **ūt-ema*): Skr. *ud-arā- ūd-ara-* ('belly') O.H.G. *ūz-ro*. *-tero-* however had become an independent suffix earlier than *-t-ηmo-* and it appears from the evidence of the different languages that it was widely used even in the proethnic period.

Indo-Germanic. **trīkṣpt²-tmmo-* or **trīkṣpt²-tmmā-* 'tricesimus': Skr. *triṣat-tamā-s* (i for ī is hysterogenous) Lat. *trīcēsīmu-s trīcēsīmu-s* (*-s-* for *-ss-*, see I § 501 p. 367 f.): compare (and contrast) Gr. *τριάκοστό-ς* i. e. *τριάκοστ+το-*. Similarly Avest. *visqstema-* (Skr. *viṣati-tamā-s*) 'vicesimus' Lat. *vīcēsīmu-s vīcēsīmu-s*: compare and contrast Gr. Att. *εἰκοστό-ς* Boeot. *fixaστό-ς* (I § 238 p. 199 f., § 501 p. 367 f.).

Skr. *án-tama-s* 'innermost, nearest, intimate', Lat. *in-tīmu-s*: cp. the comparative Skr. *án-tara-s* 'inner' Gr. *έν-τερο-ν* 'entrails', Lat. *inter-ior*, beside Gr. *έν* and Lat. *in*; beside these we

have Gr. *ἐν-τός* Lat. *in-tus*, so that we may fairly compare the relations of Skr. *adh-amā-s* : *ádḥ-ara-s* : *adh-ás* and **pṛ-mo-* (Lith. *pirma-s* Goth. *fruma*) : **pṛ-ós* (Skr. *purás* Avest. *parō* Gr. *πρός*). Avest. *ni-tema-* 'lowest, smallest', A.S. *neo-ðem-est* 'lowest, undermost': cp. the compar. Skr. *ni-tarām* A.S. *ni-ðer-ra*.

Skr. *ka-tamā-s* 'which (of several)?', Lat. *quo-tumu-s* beside *quo-tu-s*: cp. compar. Skr. *ka-tará-s* Gr. *πό-τερος*.

Aryan. Skr. *pra-thamā-s* Avest. *fra-tema-* O.Pers. *fra-tama-* 'primus' (the *th* of the Skr. form follows *cathur-thā* and the like) beside the compar. Skr. *pra-tará-m* Avest. *fra-tara-*; Gr. *πρό-μος* Umbr. *pro-mo-m* Goth. *fra-m* § 72, 2 p. 167 show a more ancient formation. Skr. *sahasra-tamā-s* Avest. *hazærō-tema-* 'millesimus', Skr. *śata-tamā-s* 'centesimus', *aṣṭi-tamā-s* 'octogesimus' etc. The feminines of these numerals have in Sanskrit *-tam-ī* instead of *-tamā*.

Skr. *ut-tamā-s* 'highest, uppermost, best' Avest. *us-tema-* 'outermost', beside Skr. *úd* 'up, out' compar. *úttara-*: cp. Gr. *ὑστ-ερος* 'latest' compar. *ὑστ-ερο-ς*.

Even in proethnic Aryan *-tama-* was the regular superlative ending for adjectives whose comparative was formed with *-tara-*. Where it was added to *a*-stems, their final *-a-* was in Avestic almost entirely replaced by *-ō-*; cp. the same phenomenon in compounds, as *daēvō-dāta-*, § 25 p. 42. Skr. *yajñiya-tama-* Avest. *yesnyō-tema-* 'most honourable', Skr. *ugra-tama-* Avest. *uyrō-tema-* 'strongest, mightiest'. Some words however have *-a-* in Avestic, e. g. *aiuyāma-tema-* 'most helpful'. Skr. *vāhni-tama-* 'carrying best', Avest. *hubaoiñi-tema-* 'with sweetest scent or perfume'. Skr. *ama-vat-tama-* Avest. *ama-vas-tema-* 'most violent, strongest, mightiest'. Skr. *mīḍh-úṣ-ṭama-* 'most gracious', Avest. *jaymuš-tema-* 'most helpful'. Skr. *vṛṣan-tama-* 'manliest, strongest'.

-tama- is sometimes added as an intensive suffix to superlative forms in (Ar.) *-iṣṭha-*, as Skr. *śrēṣṭha-tama-* from *śrēṣṭha-* 'brightest, most glorious', Avest. *vahištō-tema-* from *vahišta-* 'best'.

It was affixed to substantival stems, as Skr. *mātṛ-tama-* 'most motherly', Avest. *daēvō-tema-* 'most devilish'.

Skr. *ka-tamā-* 'which (of several)' beside *kā-tara-* 'which (of two)', interrogative. *ya-tamā-* 'which (of many)' beside *ya-tarāf* 'which (of two)', relative.

Italic. *vīcēsīmu-s trīcēsīmu-s*, see p. 177 above. Later analogical forms are *cent-ēsīmu-s mill-ēsīmu-s mult-ēsīmu-s*.

in-tīmu-s, ex-tīmu-s, ci-tīmu-s, ul-tīmu-s. dex-tīmu-s, sinis-tīmu-s. mari-tīmu-s, fini-tīmu-s, lēgi-tīmu-s, originally meaning 'most closely connected with the sea, with a boundary, with law'. *op-tīmu-s*, in inscr. also *opi-tūmu-s* (differently regarded by von Fierlinger in Kuhn's Zeitschr. XXVII 478, who derives it from a verbal stem *ō-pet-* 'strive after, wish'). *sollis-tīmu-s*. Umbr. *hon-domu* 'infimo' beside compar. *hon-dra* 'infra' Osc. hu[n]truis 'inferis', beside Lat. *humu-s*, see I § 207 p. 174.

-simo- occurs as well as *-timo-*, but its *-s-* cannot be derived from *-t-* merely by phonetic change. *maxīmu-s*, archaic *ōxīmē* (beside *ōcissīmē*), *medīoxīmu-s* (cp. *medioc-ri-s*). The most common ending is *-is-sīmu-s* (cp. *sollis-tīmu-s*), which no doubt drove out an older *-is-to-s* (§ 81), as *pot-issīmu-s, alt-issīmu-s*. *-issimo-* was also added to superlatives with intensive force, especially in later times, e. g. *postrēm-issīmu-s, minim-issīmu-s*. It is added to the stems of substantives in the language of the comedians, as *patru-issīmu-s*. But it is doubtful whether the formation with *-simo-* *-issimo-* is in any way connected with *tymo-*.

Remark. In Morph. Unt. III 135 I explained these forms as modelled upon the *-ens(s)imo-* of the numerals. We might also with Osthoff (Zur Gesch. d. Perf. 542) regard *pessīmu-s* beside *pējor* as another form that served as a type for the new development in *-issimo-*, since the *ss* in this word as well as in the numerals arose by a regular phonetic process, whether we accept Corssen's or W. Schulze's derivation (see Osthoff *loc. cit.*, Schulze, Kuhn's Ztschr. XXVII 426, Stolz Lat. Gr. p. 220). On the other hand, Stolz (*loc. cit.*) holds that *-simo-* was taken from **plūsīmo-* (*plūrīmo-*) before the law of rhotacism came into operation. According to § 72 p. 168 we could also regard forms like **pulcr-is-emo* **pulcr-semo-* as prototypes of the formation. Danielsson on the other hand (Pauli's Altital. Stud. III 153. 192) starts from the two words *maxīmus, oxīme*, which he analyses *macs-īmo- ōcs-īmē*, regarding the first elements as comparative stems for **mahis-*, **ōcis-* (cp. *plōir-umē plūr-imu-s* and the like § 72 p. 168), and supposing that it was these forms which led to the analogical

change of *-istimo-* to *-issimo-*. Danielsson compares with these forms Umbr. Osc. *nesimo-* O.Ir. *nessam* 'next' (beside the compar. O.Ir. *nessa*). But the assumption of syncope, which is required by the supposed forms in *-is-ηmo-* (**mah-is-ηmo-*, **ōc-is-ηmo-*) cannot be allowed without considerable hesitation (see p. 168); hence it is very doubtful whether Danielsson's explanation of *maximu-s* etc. can be allowed. Can **neks-* and Lat. **max-* contain the weak form of an old *es-*stem (cp. Skr. *māhas-* 'greatness' *mahās-* 'great')? The whole question needs further investigation.

Germanic. What was said of *-uma-* (§ 72, 2 p. 169) also applies to the inflexion of *-tuma-* and its meaning in Gothic. Goth. *af-tuma* 'hinder, hindmost, latter, last', A.S. *æf-tem-est* 'hindmost'. Goth. *hin-dum-ists* 'outermost' A.S. *hin-dema* 'hindmost, last'. Goth. *if-tuma* 'next': Gr. *ἐπι* 'on, to'. A.S. *neodēm-est*, see p. 178 above.

§ 74. The Suffix *-ro-* *-rā-*, *-gro-* *-grā-*¹⁾.

On the variation between *-gro-* and *-ro-* see I § 287 p. 229.

This suffix was both primary and secondary from the earliest period; but the latter use is comparatively rare.

In its primary use the root syllable has generally the weak grade of ablaut; as we should therefore expect, the accent falls on the suffix, e. g. **spə-ró-*. Sometimes we have a variation of ablaut in the root, as Skr. *chid-rá-s* 'perforated': Lith. *skėd-rà* 'splinter'; Gr. *ἰθ-υρό-ς* 'clear, bright': *αἶθ-ρᾱ* 'bright weather'; Gr. *ἰδ-ρό-*: Lett. *svīd-ri* pl. 'sweat'; O.H.G. *bitt-ar*: Goth. *báit-r-s* 'bitter'; O.H.G. *munt-ar* 'cheerful': O.C.Sl. *mąd-rŭ* 'wise'.

In some words *-ro-* seems to be connected with the *-r̥ -r̄* ending of the nom. acc. neut. (§ 118); cp. e. g. Idg. **ud-ro-*: Gr. *ῥδ-ωρ* O.H.G. *wagg-ar*; Gr. *πῑε-ρό-ς* *πῑα-ρό-ς* 'fat': *πῑαρ* 'fat' (subst.); *ἡμέ-ρᾱ*: *ἡμαρ* 'day' (cp. also Armen. *aur*, gen. *avur*, 'day'); Gr. *ῶ-ρο-ς* Goth. *jē-ra-* 'year': Avest. *yā-r** 'year' (for further examples see Morph. Unt. II 232). It is also connected with *-er-* (§ 119), cp. e. g. Idg. **us-ro-*: Skr. *uṣ-ár-* 'early light' Gr. *ἡρ-* 'in the early time' from **aus-er-*; Gr. *αἶθ-ρᾱ*: *αἶθ-ῆρ*

1) H. Osthoff, Über *-ra-* *-la-* als instrumentales suffix der indogerm. Sprachen, Forschungen I 157 ff. G. Curtius, De adjectivis Graecis et Latinis l litterae ope formati, Leipz. 1870.

'the pure light of heaven'; further with the comparative *-(t)ero-* (§ 75).

This suffix formed adjectives and substantives both in the proethnic and in later periods of Indo-Germanic; the substantives were chiefly concrete. In the separate languages *-ro-* was rarely fertile to any great extent; Gr. *-η-ρο-* in *πονηρός* etc. is an exception.

Indo-Germanic. **rudh-ró-* (in Skr. *-gró-*) 'red': Skr. *rudh-irá-s*, Gr. *ἔρυθ-ρός*, Lat. *ruber rub-ra*, O.Icel. *roð-ra* f. 'blood', O.C.Sl. *rūd-rū*. **sk(h)id-ró-* and *-gró-*: Skr. *chid-rá-s* 'perforated' *chid-rá-m* 'hole, interruption, break' *chid-irá-s* 'axe, sword', Gr. *συνδ-αρός* 'thin, weak, breakable', O.H.G. *scet-ar* 'thin, defective', Lith. (with a different grade of ablaut) *skėd-rà* 'splinter'. **spā-ró-* from $\sqrt{\text{spē}}$ 'to expand' (Lat. *spēs spatium* &c.): Skr. *sphi-rá-* 'fat, great, rich', Lat. *pro-sper -spera* (for **-spa-ro-*, like *réd-dere*: *dāre*, see I § 97 p. 91), O.C.Sl. *spo-rū* 'rich'. Skr. *iṣ-irá-s* 'quick, lively, fresh', Gr. Hom. *ἰρός* Lesb. *ἰρο-ς* for **ἰσ-ρο-* (Lesb. *ἰρο-ς* beside *ἰρρο-ς*, like gen. *μῆν-ος* beside *μῆνν-ος* and the like) and Corcyr. *ἰαρός* Boeot. *ἰαρός* for **ἰσ-αρο-* 'lively, fresh, strong, healthy'; for Att. *ἰερός*, see below. Skr. *us-rá-s* 'belonging to the morning' beside *us-r-tyā* 'brightness', Gr. *ἄρχ-αυρο-ς* 'near morning' (adj.) *αὐρ-ιο-ν* 'on the morrow' for **αὐσ-ρο-* (**aus-* or **aus-*); cp. also Lith. *ausz-rà* 'red of the morning', whose *sz* no doubt was borrowed from *aũszo* 'it dawned' (cp. I § 414 Rem. p. 303 f.). **ud-ro-* (in Gr. also *-gro-*) beside Skr. *ud-án-* 'water': Skr. *an-udrá-s* 'waterless' *sam-udrá-s* 'billowy, the sea', Gr. *ὑδ-αρός* 'watery' *ἄν-υδρο-ς* 'waterless'; and meaning a 'water-creature', Skr. *ud-rá-s* 'a creature that lives in water', Gr. *ἰδ-ρο-ς* *ἰδ-ρᾶ* 'watersnake' O.H.G. *ott-ar* O.Icel. *ot-r* 'otter', Lith. *úd-ra* O.C.Sl. *vyd-ra* 'otter'. Skr. *vī-rá-s* 'man, hero', Lat. *vi-r*, O.Ir. *fe-r* Goth. *vai-r* Lith. *vý-ra-s* 'man'. **ag-ro-s* 'pasture, level meadow, field' from $\sqrt{\text{ag-}}$ 'drive': Skr. *áj-ra-s* Gr. *ἀγ-ρός* Lat. *ag-er* (gen. *ag-rī*) Goth. *ak-r-s*.

-ro- in secondary use. **teməs-ro-* 'dark' (the neut. or fem. can be used as an abstract subst., see § 158) beside Skr. *tām-as-* n. Lith. *tam-s-à* f. 'darkness': Skr. *tamis-ra-m* *tāmis-rā*

'darkness, dark night' Avest. *taḫ-ra-* for **tams-ra- *tansra-* 'dark' ¹⁾, Lat. *teneb-rae* pl. (cp. I § 570 p. 429), Mid.Dutch *deemster* (*-as-ro*) O.H.G. *dinstar* (*-s-ro-*) 'dark' with parasitic *-t-* (I § 580 p. 433 f.), Lith. *tīms-ra-s* 'light bay coloured' of a horse (the root has the weak grade of ablaut).

Beside Skr. *pī-van-* Gr. *πί-(F)ων* 'fat' (adj.) and Skr. *pī-vas-* n. 'fat' (noun) we must recognise Idg. **pī-ye-ro-* 'fat' (adj.): Skr. *pīva-rā-* Gr. *πίε-ρός* (fem. *pīva-rī*, *πίτιρα* for **πίτερ-ια*), cp. also Gr. *πίω-της* *πίω-τερο-*; for *πίαρός* see below. Similarly Gr. *ἡ-μέ-ρα* 'day' compared with the stem *ἡ-μεν-* implied in the pl. *ἡ-μα-τα*. For the *-e-* of these compound suffixes *-ye-ro-me-ro-* cp. Gr. *φοβε-ρός* 'fearful', from *φόβο-*, etc. (Skr. *phēna-la-s* 'foamy' from *phēna-s* 'foam'). But *-ro-* can hardly be secondary in Gr. *πτε-ρός* 'feather, wing' Skr. *pat-a-rā-* 'flying' Avest. *pat-a-ra-*, which is implied in *hu-patar'ta-* 'well winged', (contrast **petrā* 'feather' in O.Icel. *fjǫðr* O.H.G. *fedara*); it is far more likely that here, as in Skr. *pāt-a-tra-m* 'wing', *-e-* is the 'thematic vowel' (cp. Gr. *πτε-ε-σθαι*, *πέτε-ε-σθαι*); cp. also Gr. *σχε-ρός* 'continuous' beside *σχε-ε-τός* *σχε-ε-σις* *σχε-έ-ς*. It is quite possible that originally *-e-ro-* was always a primary suffix, and only became secondary when it was popularly connected with nominal *e- : o-* stems.

Aryan. Since Idg. *r* and *l* are indistinguishable in the Aryan languages (I § 254 p. 207 f.), it is often difficult to separate *-ro-* and *-lo-*. In some cases the meaning vouches for *-lo-*, e. g. *vr̥ṣa-lá-s* 'mannikin, small man' (see § 76). Often the other languages give us a criterion, since in them Idg. *l* and *r* remained distinct.

Skr. *śū-ra-* Avest. *sū-ra-* 'strong, grand': Gr. *ἄ-κυρο-* 'weak, ineffective'. Skr. *jī-rá-* 'lively, quick, active' Avest. *pouru-jīra-* 'very active' *daēma-jīra-* 'quick of eye, with quick

1) If this explanation of the Avestic word is correct, we might compare the *p̥* with the same sound in *aiwi-pūra-* from *sūra-*, (see Bartholomae Hdb. § 144). No other example of *-msr-* *-nsr-* appears to occur, and thus there can be little serious objection to our assuming that it was just in this group of consonants that *p̥* was regularly developed.

eyes': Lat. *vi-reō* 'be fresh, strong, green', O.C.Sl. *ži-rŭ* 'pasture', Lett. *dī-ras* pl. f. 'banquet'. Skr. *ud-rā-* Avest. *ud-ra-* m. a water animal: Gr. *ũd-ρo-ς* etc., see p. 181 above. Skr. *cit-rā-* 'shining, glorious, wonderful' Avest. *ciṣ-ra-* 'wonderful': O.H.G. *heit-ar* 'shining, clear, bright'. Skr. *śubh-rā-* 'shining, fine': Armen. *surb* 'pure'; no doubt the suffix is the same in Skr. *śuk-rā śuk-lā-* 'clear, pure' Avest. *sux-ra-* 'flaming, red' O.Pers. *puṣ-ra-* proper name. Skr. *vāj-ra-s* Indra's thunderbolt, Avest. *vaz-ra-* 'club' O.Pers. *vazra-ka-* 'great, mighty', beside Skr. *vāja-* Avest. *vāza-* m. 'strength': cp. O.H.G. *wahh-ar* O.Icel. *vak-r* 'lively, quick, fresh, alert' and Goth. *vōk-r-s* 'profit' O.H.G. *wuohh-ar* 'increase, gain, profit'. Skr. *am-lā-* and *ambla-* (I § 199 p. 167 f.) 'sour': Dutch *amper* 'sharp, bitter' O.Icel. *apr* 'sharp' O.H.G. *ampfaro* 'sorrel' (adj. used as subst.) no doubt for pre-Germ. **am(b)-ro-*, cp. also Lat. *am-āru-s*.

Skr. *śīth-irā- śīth-ilā-* 'loose, unsteady': Gr. *χαθ-αρό-ς* 'open, free, pure'. Skr. *mand-irā-m* 'lodging, dwelling, room, house' Gr. *μάνδ-ρᾱ* 'fold, pen, stall'; Skr. *mand-urā* 'stable' either has *-urā-* for *-grā-* (cp. however I § 290 p. 231 f.) or may be an extension of a stem **mandu-*.

With Skr. *pata-rā-* 'flying' (see p. 182) compare *drava-rā-* 'running', *ny-ḍca-rā-* 'suited to, belonging to a place'.

-ro- in secondary use: Skr. *tamis-ra-*, *pīvarā-*, see above, p. 181 f. *vy-ad-varā-* 'gnawing, rodent' beside *ad-van-* 'eating': cp. Hom. *ἔδφαρ* (*ēd̄aφ*), gen. *ἔδφατος*, 'food'.

Examples of Aryan words with *-ra- -la-*, which, so far as we can tell, may represent either *-ro-* or *-lo-*, are given in § 76 Rem. 1.

Armenian. *surb*, gen. *srboy*, 'pure' for **sub-ro-s* (I § 263 p. 214): Skr. *śubh-rā-s*. *Ḍirtn*, gen. *Ḍrtan* 'sweat' for **Ḍitr-an-*: Gr. *ἰδ-ρῶ-* Lett. *swid-ri* pl. 'sweat'. *tu-r* 'gift': Gr. *δῶ-ρο-v* O.C.Sl. *da-rŭ* 'gift'.

The *-aro-* of adjectives in *-ar*, which no doubt comes from *-gro-*, appears to be sometimes primary, sometimes secondary. It is primary e. g. in *dal-ar* 'green, fresh' (cp. Gr. *θαλε-ρῶ-ς*), and secondary e. g. in *ard-ar* 'just' (cp. Skr. *ṛ-tā-*). *mecar-em*

'I exalt, praise' a denominative verb like Gr. *μεγαλῶ* 'I rate highly, admire' (from **μεγαρο-*, cp. *μέγαρον* 'large space, chamber').

Greek. *ἐλαφ-ρός* 'light, brisk': O.H.G. *lung-ar* 'quick, active', common ground-form **l̥əgh-ró-s*. *ἄκ-ρος* 'pointed' *ἄκρον* *ἄκρᾱ* 'point, peak': Skr. *catur-aśra-* 'four-cornered', O.C.Sl. *os-t-rŭ* 'sharp'. *ζω-ρός* 'unmixed' (of wine), *ἐνεργής, ταχύς* (Hesych.): no doubt to be compared with O.C.Sl. *ja-rŭ* 'amarus, iratus' Serv. *jara* 'heat of a stove'. *ἀφ-ρός* 'foam': Skr. *abh-rá-m* 'cloud' (cp. also Lat. *imber* gen. *imbris* in the *i*-declension), common ground-form **ḡbh-ró-*; beside this *ὄμβρος* 'rain' with Idg. *b* like Skr. *ám̐b-u-* 'water', see I § 469, 8 p. 346 f. *κάπ-ρος* 'boar': Lat. *cap-er cap-ra*, O.Icel. *haf-r* 'he-goat'. *νεφ-ρός* 'kidney, testicle': Ital. Praenest. *nefr-ōn-es*, Lanuv. *nebr-undin-es* 'kidneys testicles', O.H.G. *nior-o* 'kidney, testicle' O.Icel. *nȳr-a n.* 'kidney' (I § 443 p. 329), common ground-form **negh-ró-*. *ἐδ-ρᾱ* 'seat': O.Icel. *set-r n.* 'seat'. *λαμπ-ρός* 'shining'. *σαπ-ρός* 'rotten'. *φαιδ-ρός* 'beaming, happy'. *νεκ-ρός* 'corpse'. *τάφ-ρος* 'ditch, trench'. *κόπ-ρος* 'dung'. *τέφ-ρᾱ* 'ashes'.

Adjectives were formed in proethnic Greek in *-η-ρός* (a fertile suffix) from verbs in *-έω*, as *πονη-ρός* 'toilsome' from *πονέομαι*, *ὀκνη-ρός* 'slack' from *ὀκνέω*, *ὀλισθη-ρός* 'slippery' from the fut. *ὀλισθήσω* (pres. *ὀλισθάνω*).

-τρο-. *ιαρός* beside *ἱρός* see p. 181 above. *λιπ-αρός* 'fat': cp. Skr. *rip-rá-m* 'smear, stain, impurity'. *σιν-αρός* beside *σιν-δ-ρός* (for the *δ*, see I § 204 p. 170) 'harmful', and other examples.

-ρο- is secondary in Att. (Aristoph.) *οἰζυ-ρός* 'woeful' from *οἰζύς*, gen. *οἰζύος* 'woe, and similarly in *λιγυ-ρός* beside *λιγύς* 'clear, ringing' and *μωλυ-ρός* beside *μῶλυς* 'enfeebled', unless these are derived from **λιγυλο-* **μωλυλο-* (cp. *παχυ-λός* § 76) by dissimilation (I § 266 p. 215). Further, in many adjectives in *-ε-ρος*; e. g. *φοβε-ρός* 'terrible' from *φόβος*, *δροσι-ρός* 'dewy' from *δρόσος*, whose termination *-ε-ρός* was regarded as an independent suffix, and added to other than *o*-stems, as *σκιερός* 'shady' from *σκιᾶ*, *κρατερός* 'strong' from *κράτος n.*; cp. p. 182.

-ρο- can be considered either a secondary or a primary suffix in adjectives in *-ᾱ-ρο-*, as *ὀδυνηρός* Dor. *ὀδυναρός* 'painful'

beside *ὀδύνῃ* Dor. *ὀδύνᾱ* and *ὀδυνάω*, *ἀσηρό-ς* Lesb. *ἄσᾱρο-ς* 'causing disgust, disagreeable' beside *ἄση* Lesb. *ἄσᾱ* and *ἀσάω*, and in those in *-v-ro-*, as Hom. *ὀιζυρό-ς* 'woeful' beside *ὀιζύς* and *ὀιζύω* (Att. *ὀιζυρό-ς*, see p. 184 above), *ισχυρό-ς* 'strong' beside *ισχύς* and *ισχύω*.

Remark. The relations of *-ero-* and *-ago-* are not quite clear in such instances as *ιερό-ς*: *ιερó-ς* (Skr. *iṣ-ird-s*); *σκιερό-ς* (from *σκιά*): *σκιαρό-ς*; *πιερό-ς* (Skr. *picard-*): *πιαρό-ς* (see Morph. Unt. II 241 ff.). I should compare *πιαρό-ς* (and also *πιαλό-ς*) with *πιαίνω* for **pīyñ-īd-*, exactly as *μιαρό-ς* 'defiled' is to be derived from *μιαίνω*, so that the relation is the same as that of *θauμα-τό-ς* (i. e. **θauμη-το-ς*): *θauμαίνω*. Then new formations arose, *ιερό-ς* (modelled upon *πιερό-ς* *σκιερό-ς*) on the one hand, *σκιαρό-ς* (modelled upon *μιαρό-ς* *πιαρό-ς*) on the other.

Italic. Lat. *rub-er rub-ra*, Umbr. *rufru* 'rubros' *rufra* 'rubras': Gr. *ῥοῦθ-ρό-ς* etc., see p. 181 above. Lat. *vi-r* gen. *vi-rī*, Umbr. *veiro* 'viros': O.Ir. *fe-r* Skr. *vī-ra-s* etc., see p. 181 above. Lat. *cap-er cap-ra*, Umbr. *kaprum* 'caprum': Gr. *κάπ-ρο-ς* etc., see p. 184 above. Lat. *ag-er* gen. *ag-rī*, Umbr. *agre* gen. 'agri': Skr. *áj-ra-s* etc., see p. 181 above. Lat. *sac-er sac-ra*, Falisc. *sacru* 'sacrum', Umbr. *sakra* 'sacras', Osc. *σακ-ορο* 'sacrum' *sak-arater* 'sacratur' (I § 627 p. 471). Lat. *mac-er mac-ra*: Gr. *μακ-ρό-ς* 'long, lean, far', O.H.G. *mag-ar* O.Icel. *mag-r* 'lean' pr. Germ. *maz-rá-*. Lat. *ob-scūru-s* 'dark', properly 'covered over': O.H.G. *skū-r* 'shelter, covered place, lodging'. Lat. *plē-ru-s plērī-que*: Gr. *πλήρ-ης* 'full', which is a modification of an older form **πλη-ρο-* (cp. *πληρώω*), but its accent, in contrast to the analogous *ύδαρής* (: *ύδαρό-ς*), followed that of compounds in *-ήρης* like *διήρης*. Lat. *pū-ru-s dī-ru-s clā-ru-s gnā-ru-s* (cp. I § 253 p. 207). *in-terger* (cp. *intāctu-s*). *nig-er. glab-er* (we may conjecture that the original form of the stem was **gladh-ro-* or **glādh-ro-*, cp. O.C.Sl. *gladŭkŭ* 'smooth'). *scab-er. stup-ru-m. lab-ru-m* 'lip'. *scalp-er* and *scalp-ru-m. flag-ru-m*. At the same time in words where an *l* occurs before the suffix *-ro-*, it must be remembered that the latter may have come from *-lo-*, cp. *lu-crum* for **lu-clum* I § 269 p. 217. Sabin. *cuprum* 'bonum' *Cupra* 'bona dea', Umbr. *Cubrar* gen. 'Bonae deae', beside Lat. *cup-iō*.

No certain examples of *-gro-* can be found; perhaps it may be traced in Lat. *camur camura*, cp. Gr. *καμάρα* 'vault'.

-e-ro- occurs in Lat. *liber libera* O.Lat. *loeber-tātem*, which is usually compared with Gr. *ἐλευθ-ερος* (see I § 49 p. 42, § 65 p. 52), *puer* gen. *puerī*, *gener* gen. *generī*.

The relation of Lat. *amā-ru-s*: Skr. *am-lā-* 'sour' is obscure.

-ro- in secondary use. *teneb-rae*: Skr. *tamis-ra-* etc., see above p. 181 f. *cerebru-m* for **ceres-ro-*, cp. Skr. *śtras-* 'head'. *fūnebri-s* instead of **fūnes-ro-*, transferred to the *i*-declension, beside *fūnus fūnes-tu-s*, see I § 570 p. 423, II § 93 under Italic. *membru-m membr-āna* for **mēms-ro-*: O.Ir. *mīr* 'piece of flesh' from pr. Kelt. **mēns-r...*, beside Skr. *māśā-* Goth. *mimza-* O.C.Sl. *měso-* 'flesh' (I § 570 p. 428, § 574 p. 430, § 585 Rem. 3 p. 440).

Old Irish. *sī-r* Mod.Cymr. *hi-r* 'lasting long' (comparative O.Ir. *sia*): Lat. *sē-ru-s*, common ground-form **sē-ro-*, beside Skr. *sāya-s* 'late time, end'. *lā-r* Mod.Cymr. *llaw-r* 'flooring, floor': A.S. *flō-r* 'floor' Mid.H.G. *vluo-r* 'level, floor'. *ar* Mod.Cymr. *aer* 'battle, fight' for **ag-ro-* (I § 523 p. 380): Skr. *ghāsē-ajra-* 'attractive to the taste, creating appetite' Gr. *ἄγ-ρα* 'game, prey', from *√ag-* 'drive', cp. Idg. **ag-ro-* 'place where cattle are driven, field' which was formed from the same root, p. 181. *bod-ar* (acc. pl. *bod-ra*): Skr. *badh-irā-* 'deaf'. *mā-r mō-r* Mod.Cym. *maw-r* 'great' Gall. *-māro-* in *Virido-māru-s* and other proper names, beside the compar. O.Ir. *māo mō* 'greater': Gr. *ἰγχεσι-μω-ρος* 'great or distinguished in throwing the spear', and the like (Bechtel, Über die Bezeichn. d. sinnl. Wahrnehm. 101; Osthoff, Paul-Braune's Beitr. XIII 431 ff.), common ground-form **mō-ro-*. *uar* Mod.Cymr. *oer* 'cold' pr. Kelt. **og-ro-*.

-ro- is secondary in O.Ir. *mīr*, see above.

Germanic. O.H.G. *sā-r* O.Icel. *sū-r-r* sour, 'bitter': Lith. *sū-ra-s* 'salt' (adj.) O.C.Sl. *sy-rŭ* 'raw'. O.H.G. *munt-ar* 'fresh, lively, hasty, Goth. *mund-r-ei* 'goal, object': O.C.Sl. *mqd-rŭ* 'wise' (Lith. *mand-rŭ-s* 'conceited, overbearing' instead of **mand-ra-s*). Goth. *gáu-r-s* 'troubled, sorrowful' beside *gáu-nōn* 'to sorrow, lament': Skr. *ghō-rā-s* 'horrible'. O.H.G. *weig-ar* 'teme-

rarius' pr. Germ. **uairā-*, beside Goth. *veihan* 'to fight': Lith. *vik-rū-s* 'brisk, lively' instead of **vik-ra-s*. Goth. *jē-r* O.H.G. *jā-r* n. 'year': Gr. *ῥο-ς* 'year' *ῥα* 'season' O.C.Sl. *ja-rŭ ja-ra* 'springtime', by the side of which we find Avest. *yā-r* n. 'year', cp. Skr. *yā-ti* 'he goes, travels'. O.H.G. *fed-ara* O.Icel. *fjǫð-r* f. 'feather' pr. Germ. **feþ-rō-*: cp. Gr. *πτερόν* etc., see p. 182 above. Goth. *skei-r-s* A.S. *skī-r* 'pure, clear' (: Russ. *ščiryj* 'pure', see I § 414 Rem. p. 303 f.). Goth. *fag-r-s* 'suitable' O.H.G. *fag-ar* 'fair' pr. Germ. **faz-rā-*, √ *pāk-*: cp. Umbr. *pacrer* pl. 'propitii' § 98. O.H.G. *hē-r* 'grand, exalted, sublime' pr. Germ. **hax-ra-*, no doubt to be compared with Goth. *hái-l-s* 'healthy'. O.H.G. *sē-r* 'painful, sore' O.Icel. *sā-r-r* 'sore, bad', Goth. *sái-r* O.H.G. *sē-r* n. 'pain' pr. Germ. **sax-ra-*. O.H.G. *zang-ar* 'biting, sharp' pr. Germ. **tanǵ-rā-*, cp. O.H.G. *zanga* 'tongs' Skr. *dāś-ana-m* 'a biting, bite'. O.H.G. *bā-r* m. 'dwell-ing' O.Icel. *bū-r* n. 'room, storehouse', beside O.H.G. *bū-an* 'build upon'. O.H.G. *scob-ar* m. 'stack, piled up heap of corn', √ *skeyp- skeyb-* 'shove, push': Lith. *skub-rū-s* 'hasty'. Goth. *skū-ra* f. 'shower, storm' O.H.G. *scū-r* m. 'shower'. O.H.G. *zunt-ra zunt-ara* f. O.Icel. *tund-r* n. 'tinder' beside O.H.G. *zant-ro zant-aro* m. 'glowing coal' O.Icel. *tand-re* m. 'fire' (pr. Germ. **tand-r-en-*). Goth. *lig-r-s* m. O.H.G. *leg-ar* n. 'couch'. O.H.G. *zimbar* n. 'timber, dwelling' A.S. *timbar* n. 'building', West Germ. **timbra-* for **tim-ra-*, Goth. *tim-r-jun* 'to do carpenter's work', √ *dem-*. O.H.G. *eit-ar* n. O.Icel. *eit-r* n. 'poison', beside Gr. *οἰδ-ος οἰδ-μα* 'swelling'.

-tro- pr. Germ. *-ura-* occurs perhaps in O.H.G. *ebur* A.S. *eofor* O.Icel. *jǫforr* (pl. *jǫfrar*) 'boar': cp. Lat. *ap-er* gen. *ap-rī*, O.C.Sl. *vep-rī* (stem *vep-r-je-*) 'boar'. *-e-ro-* is even more difficult to identify in Germanic.

-ro- is secondary in O.H.G. *dinstar* Mid.Dutch *deemster* 'dark': Skr. *tamis-ra-* etc., see above, p. 181 f.

Balto-Slavonic. Lith. *asz-t-rū-s asz-ru-s*, instead of **-ra-s*, O.C.Sl. *os-t-rŭ* 'sharp' (for the *-t-* see I § 544 p. 398 f., § 545 p. 400): Gr. *ᾱx-ρο-ς* etc., see p. 183 f. above. Lith. *pū-rai* pl. 'wheat' O.C.Sl. *py-ro* n. 'spelt': Gr. *πυρό-ς* 'wheat'. Lith. denomin. *szvit-r-inėti*

'to glimmer' *szvyt-r-ū'ti* 'to gleam': Skr. *śvit-rā-s* 'white'. Lith. *kup-rā* 'knob, boss': O.H.G. *hov-ar* A.S. *hof-er* m. 'knob'. O.C.Sl. *ved-rū* 'clear, bright' *ved-ro* n. 'fair wather': O.H.G. *wet-ar* n. 'weather', common ground-form **uedh-rō-*. O.C.Sl. *dob-rū* 'good': O.H.G. *taph-ar* Mid.H.G. *tapf-er* 'heavy, weighty, fast'. O.C.Sl. *da-rū* 'gift': Armen. *tu-r* Gr. *δῶ-ρο-ν* 'gift'.

Lith. *bud-rū-s* instead of **-ra-s* O.C.Sl. *būd-rū* 'watchful'. *-ra-s* is seldom kept in adjectives in Lithuanian (e. g. *tik-ra-s* 'suitable'); they generally passed over into the *u*-declension; cp. § 107. In O.C.Sl. we have only a few adjectives, cp. besides those quoted above, *pīstrū* 'gay' for **pīs-rū* (like *os-t-rū*) from *✓peik-*.

Lith. *stuñb-ra-s* 'aurochs'. *stañb-ra-s* and *stemb-r-ỹ-s* 'stalk'. *gais-ra-s* *gais-rà* 'distant gleam on the horizon', beside *gis-tu* 'extinguor' (cp. Leskien, *Der Ablaut der Wurzelsilben im Lit.* 65). O.C.Sl. *pi-rū* 'convivium'. *ra-rū* 'sonitus'. *mě-ra* 'measure'. *reb-ro* 'rib' (beside O.H.G. *rippi* n. 'rib', pr. Germ. **rið-ja-*).

-ro- in secondary use: Lith. *tims-ra-s* 'light bay coloured' (of a horse): Skr. *tamis-ra-* etc., see p. 181 f. above. Lith. *vidurỹ-s* 'middle', no doubt = *vidu-r-ja-* a derivative of *vidū-s* 'the inside', similarly *duburỹ-s* 'depth' from *dubū-s* 'deep and hollow'. It seems to me doubtful whether we should compare with these the *-ro-* of Lith. *nas-raĩ* pl. 'throat' O.C.Sl. *noz-dri* pl. 'nostrils' (beside Low Germ. *nuster* 'nostril' and Idg. **nas-* 'nose'), and of O.C.Sl. *męz-dra* 'fine skin on a recent wound, the fleshy part of anything' (beside *męso* 'flesh'), cp. I § 585 p. 439.

§ 75. The Suffixes *-ero-* *-erā-* and *-tero-* *-terā-*, forming Comparatives.

These are closely parallel to the superlative *-mo-* *-mmo-* (§ 72, 2 p. 166 ff.) and *-tmmo-* (§ 73 p. 177 ff.).

-(t)ero- shows a close etymological relation to the adverbs in -(t)er and (loc.) -(t)er-i, e. g. **upero-* beside Gr. *ὑπὲρ* Skr. *upāri*, **en-tero-* beside Lat. *in-ter* Skr. *antāri-kṣa-*. On the other hand -(t)ero- is often connected with *-ro-* (see § 74). Per Persson's suggestions for its etymology (*Studia Etymologica*, Upsala 1886,

p. 94 ff.) are more extensive, but for the most part exceedingly bold.

Beside *-(t)ero-* is found *-(t)oro-*, e. g. Avest. *ka-tāra-* Goth. *hva-þar* O.C.Sl. *ko-tory-jŕ*, *-(t)ro-*, e. g. Skr. *an-trā-m* Gr. *ἀλλό-τρω-ς* Lat. *in-trō* O.C.Sl. *ję-tro*, and *-(t)gro-*, e. g. Gr. *νε(φ)-αρός* A.S. *eafora*¹⁾ The original distribution of these different grades of ablaut can no longer be traced; the difference of accent however should be noticed, e. g. Skr. *án-tara-* *an-trá-an-tári-kṣa-*.

-tero- shows the greatest fertility in Aryan and Greek, where it was a regular comparative suffix for adjectives.

Indo-Germanic. **upero-*, beside Skr. *upári* 'above' Gr. *ὑπέρ*, *ὑπείρ* (i. e. **ὑπερ*, see I § 645, 2 p. 489) Lat. *s-uper* O.H.G. *ubir* 'over' (compare further Skr. *úpa* 'towards' Gr. *ὑπο* 'under' etc.): Skr. *úpara-* 'nearer, behind, under' Avest. *upara-* 'upper', Gr. *ὑπερο-ς* *ὑπερο-ν* 'pestle' *ὑπέρᾱ* 'upper rope', Lat. *s-uperu-s* *s-uprā* *s-uprē-mu-s*, A.S. *ufer-ra* 'upper' (*-ra* = Goth. *-iza*); cp. superl. Skr. *upamá-s* Lat. *s-ummu-s*. **gdhero-* 'lower' beside Avest. *adairi* 'under' and Skr. *adhás* 'below': Skr. *ádharma-* 'lower', Goth. *undarō* adv. 'underneath' O.H.G. *undaro* *undero* 'lower'; cp. superl. Skr. *adhamá-s*.

**en-tero-* 'inner', subst. n. 'intestines', beside Lat. *in-ter* Skr. *antári-kṣa-* 'that which lies in between heaven and earth, sky': Skr. *ántara-s* 'inner, dearer, more intimate' *antrá-m* *ántrá-m* 'intestine', Armen. *ęnder-Ē* pl. 'intestines' (possibly borrowed from the Greek), Gr. *ἐντερο-ν* 'intestine', Lat. *inter-ior* *intra* *intrō*, O.Ir. *eter* *etir* 'between', O.C.Sl. *ję-tro* n. 'liver'; cp. superl. Skr. *ántama-s* Lat. *intimu-s*. **ni-tero-* 'lower': Skr. *nitardm* 'downwards, down', O.H.G. *nidaro* adj. 'lower'; cp. superl. Avest. *nitema-* A.S. *neodēm-est*. Avest. *fra-tara-* Gr. *πρό-τερο-ς* 'former,

1) *-tŕ* (cp. *-ter* beside *-tero-*) seems to occur in Skr. *sani-tár* 'beside, except, without' Gr. *ἀ-τάρ* 'sed' O.H.G. *sun-tar* 'by itself, especially, but, however' beside Skr. *sanu-tár* 'away, aside' Gr. *ἀ-τερ* 'without' (is the irregular *spiritus lenis* in *ἀτάρ* and *ἀτερ* due to the influence of *αὐτάρ* and *ἀντίο*?) A.S. *sun-dir* 'except, without'; cp. also Goth. *sun-drō* 'separated, alone'. The root-syllable of the Greek and Germanic words is **sŕ-*. Cp. Bugge, Bezzenberger's Beitr. III 120 f.

earlier', beside Osc. *pruter-pan* 'πρότερον ἤ, priusquam'; compare further Avest. *fra* Gr. *πρό* 'before'; cp. superl. Avest. *fra-tema-*.

**go-tero-* from the stem **go-* 'who?': Skr. *ka-tarā-* Avest. *ka-tāra-*¹⁾ Gr. *πό-τερο-ς* 'which of two?' Umbr. *podruh-pei* 'utroque', Goth. *hva-þar* 'which of two?' Lith. *ka-trā-s* 'which of two? which? who?' O.C.Sl. *ko-teri-jŕ ko-tori-jŕ* 'who?'; cp. superl. Skr. *ka-tamā-s*, Lat. *quo-tumu-s*.

It can hardly be an accidental coincidence that several Indo-Germanic languages have a word for 'left' which shows the suffix *-tero-* added to a stem formed with the comparative suffix *-jes -is-* (§ 135), and contains the idea of 'goodness' (cp. Gr. *ἐὺώνυμο-ς* 'left'). Avest. *vairyas-tāra-*, beside *vara-* 'desirable, excellent' compar. Skr. *vārīyas-*. Gr. *ἄρισ-τερό-ς*, beside *ἄρισ-το-ς* 'best' *ἀριῶν* 'better' (not connected with Ar. *vara-*). O.H.G. *winis-tar*, beside *wini* 'beloved' *wunsc* 'wish, desire'; cp. also, from the same root, Skr. *vāma-s* 'left', identical with *vāmā-s* 'worthy, dear, good', from a ground-form **uṇ-mo-s*, √ *uṇ-*. Lat. *sinis-ter*, which should surely be compared with Skr. *sán-īyas-* 'gaining more' √ *sen-* 'to reach a goal (which is striven after or longed for), to succeed' (see Kuhn's *Zeitschr.* XXIV 271 f.), and not with *senior* *seniu-m* (when the intermediate stage of meaning would be 'weak, incapable'); for the *i* of the first syllable cp. *simili-s*. One at least therefore of these formations must date from protoethnic Indo-Germanic, and at the time of the separation of the peoples must have still retained its original meaning as well as the secondary one of 'left', and so become the model for the rest. Cp. the Author, *Rhein. Mus.* XLIII p. 399 ff.

Aryan. Skr. *ādḥ-ara-* Avest. *āḍ-ara-* 'lower', see p. 189 above. Skr. *āp-ara-* 'more distant, later, smaller, other', *ap-arā-m* adv. 'later' Avest. *ap-ara-* 'the other' O.Pers. *ap-ara-m* adv. 'afterwards', beside Skr. *āpa* 'from, away': A.S. *af-era eafora* O.Sax. *aðaro* m. 'successor, offspring' (Goth. *afar* 'after' O.H.G. *abur avar* 'again, anew; on the other hand, however');

1) The quantity of the *ā* in the syllable *ka-*, if the law given in I § 78 p. 69 is correct, might be explained by reference to a by-form **katra-* in protoethnic Aryan (cp. the Ital. and Lith. forms).

with which compare O.Pers. *apa-tara-m* 'further' and Goth. *af-tarō* adv. 'backwards' *afta* adv. 'back, anew, further' O.H.G. *aftaro* m. 'hinder part' A.S. *æfta* adj. 'hinder'. Skr. *áv-ara-s* 'lower' Avest. *aora* adv. 'down, off' (cp. Avest. *naotara-* = Skr. *navatara-* compar. from Skr. *náva-* 'new'), cp. Skr. *áva* 'off, downwards'.

Skr. *án-tara-* Avest. *an-tara-* 'inner' Skr. *an-trá-m an-trá-m* 'intestine': Gr. *ἐν-τερον* etc., see p. 189 above. Skr. *út-tara-* 'higher, upper' from *úd* 'up, out': Gr. *ὑστερον* 'later' *ὑστρον* 'belly'; beside this we have Skr. *ud-arā- ūd-ara-* 'belly, swelling' Gr. *ὄδερρον* 'belly' Hesych. (probably Cyprian, with *o* = *v* as in *μοχῶι* = *μυχῶι* and other words), O.H.G. *ūzro* 'outer'. *-tara-m* is especially frequent in Aryan as an adverbial termination. Skr. *vi-tará-m* Avest. *vī-tare-m* 'further' (in Avestic also an adj.) beside Skr. *vī* 'away, apart': Goth. *vi-þra* adv. 'against, with-' (in composition); compare also Lat. *vi-tr-icu-s* 'stepfather', the termination being like that of O.H.G. *ent(i)rig* 'strange' = **antrizá-s* from *ander* 'other'. Skr. *parā-tará-m paras-tará-m* 'further away' from *pārā parás* 'away, forth'. Instead of this later Sanskrit has generally *-tarā-m*, as *uccāis-tarām* 'higher' from *uccāiṣ* 'high', *śandis-tarām* 'more softly, more gradually', from *śandīṣ* 'softly, gradually'.

Skr. *ka-tará-* Avest. *ka-tāra-* 'which of two?': Gr. *πό-τερον* etc., see p. 190 above. Skr. *ya-tará-* Avest. *ya-tāra-* 'which (of two)' (rel.), beside Skr. *yá-s* 'qui'. Avest. *a-tāra-* from the stem *a-* 'that'.

-tara- was also the regular comparative ending of adjectives in Aryan where *-tama-* formed the superlative. The same rules of formation hold as for *-tama-*, see § 73 p. 178. Skr. *amā-tara-s* 'more raw' from *amā-s*: Gr. *ᾤμώ-τερον* 'more raw, more rude'; Skr. *yajñiya-tara-* 'more deserving of reverence'; Avest. *aka-tara-* 'worse' from *aka-*, *srīrō-tara-* 'nobler' from *srīra-*. Skr. *śrēṣṭha-tara-* 'more excellent' from superl. *śrēṣṭha-*, *garīyas-tara-* 'heavier, weightier' beside compar. *garīyas-*, Avest. *vairyas-tara-* 'left' see p. 190 above; cp. also Avest. *fratarō-tara-* from *fratara-* 'more prominent'. Skr. *duḥkha-tara-* 'more painful, more unpleasant',

and as subst. n. 'greater pain', from *duhkhá-m* 'pain'. Avest. *ušas-tara-* 'easterly' from *ušah-* 'red of the morning', *daoša-tara-* 'westerly' from *daoša-* 'evening'.

Armenian. *nor*, gen. *noroy*, 'new': cp. Gr. *νεαρός* 'young, youthful' ground-form **neu-rō-s*, see p. 189 above; it is doubtful whether **neu-rō-* was also the ground-form of the Armenian word. Gen. *mer* 'our' *jer* 'your' (nom. *me-ē* 'we' *du-ē* 'ye'): cp. O.Ir. possess. *ar n-* 'our' *far n-* 'your', Goth. *unsar* 'our' *izvar* 'your'; and further Gr. *ἡμέτερο-ς* *ὑμέτερο-ς*, Lat. *nos-ter ves-ter*.

ender-ē pl. 'intestines' cannot be quoted without suspicion, as it may perhaps have been borrowed from the Greek (*έντερον*), cp. p. 189.

Greek. *ὑπερο-ς* 'pestle': Skr. *úpara-* etc., see p. 189 above. *ὄδερο-ς* 'belly': Skr. *udarā-* etc., see p. 191 above. *ένεροι* 'inferi' (properly those within, those dwelling within the earth) from *έν* 'in', cp. also *ένέρ-τερο-ς* *νέρ-τερο-ς* 'deeper' beside *ένερ-θε* 'apud inferos' and *έντερο-ν* 'intestine'. *νεαρός* 'young, youthful': cp. Armen. *nor* (see above) and Lat. *noverca* meaning **ή νεαρική*.

έντερο-ν 'intestine', see p. 189 above. *ύστερο-ς* 'later'. *ύστρο-ς* 'belly': Skr. *úttara-*, see p. 191 above. *πρότερο-ς* 'earlier': Avest. *fra-tara-*, see p. 190 above. Greek has many new formations modelled upon old comparatives derived, like these, from adverbs. *ύπερ-τερο-ς* 'higher' from *ύπερ*. *κατώ-τερο-ς* 'lower' from *κάτω*. *ύψί-τερο-ς* 'higher' from *ύψι*. *παροι-τερο-ς* 'more prominent' beside *πάροι-θε* 'before'. *μυχοί-τερο-ς* 'further back in the corner' (only *μυχοί-τατο-ς* is actually found) from *μυχοί* 'in the corner, inside'. *παλαι-τερο-ς* 'older' from *πάλαι*. *παλαι-τερο-ς* was referred to *παλαιός* and hence arose the forms *γεραι-τερο-ς* 'older' from *γεραιός*, *σχολαί-τερο-ς* 'more idle' from *σχολαῖος*, and when *-αιτερο-ς* further came to be regarded as an independent suffix, it produced the forms *ήσυχ-αίτερο-ς* 'quieter' from *ήσυχος*, *ιδι-αίτερο-ς* 'more especially one's own' from *ιδιος*, and many more. With the adverbial termination *-τέρω*: *άνω-τέρω* from *άνω* 'up', *πρσσω-τέρω* from *πρόσω* 'forwards', *έγγυ-τέρω* from *έγγύς* 'near', and many more.

πό-τερο-ς 'which of two?': Skr. *ka-tarā-s* etc., see p. 191 above. Dor. Boeot. etc. *ἄτερο-ς* 'one of two, the other' ground-form **sm̥-tero-* from **sem-* Gr. *εἷς* 'unus' (cp. *ἄ-παξ* etc.); the Attic form *ἔτερο-ς* no doubt arose through an assimilation to the vowel of *έν-*, just as *ἐ-κατόν* 'a hundred' replaced **ἄ-κατον* for the same reason.¹⁾ *ἐκά-τερο-ς* 'each of two' beside *ἐκάς*, cp. Wackernagel in Kuhn's *Ztschr.* XXIX 150 f.

ἡμέ-τερο-ς 'our' *ὑμέ-τερο-ς* 'your': cp. Lat. *nos-ter ves-ter*.

The form *-tro-* occurs in *ἄλλο-τρο-ιο-ς* 'belonging to another, strange'; tis extension by the suffix *-ιο-* is no doubt due to the form of its antithesis *ἴδιο-ς*.

-τερο- was also the regular comparative termination in adjectives whose superlative was formed in *-τατο-* (§ 81). *ὠμό-τερο-ς* 'more raw, more rude' from *ὠμός-ς*: Skr. *āmā-tara-s*. *κοιφó-τερο-ς* 'lighter' from *κοῦφο-ς*. *γλυκύ-τερο-ς* 'sweeter' from *γλυκύ-ς*. *πῖó-τερο-ς* 'fatter' from *πῖων -ονος*, *ἐπιλησμό-τερο-ς* 'more forgetful' from *ἐπιλήσμων -ονος*, cp. *πῖó-της* and *ἀκμό-θετο-ν* (cp. § 12 p. 27, § 29 p. 49). *μελάν-τερο-ς* 'blackier', from *μέλας -ανος*. *χαριέστερο-ς* 'more charming, more gracious', i. e. **χαρι-φετ + τερο-*, from *χαρίεις -εντος*; *-φετ-* took the place of the regular phonetic *-φατ-* = Idg. *-m̥t-* (§ 127). *ἀχαρίστερο-ς* 'more ungraceful' i. e. **ἀχαριτ + τερο-*, from *ἄχαρις -ιτος*. *ἀληθέσ-τερο-ς* 'truer' from *ἀληθής* neut. *-ές*.

Comparatives with *ω* like *σοφó-τερο-ς* 'wiser', from *σοφός-ς*, were formed from adverbs in *-ω* (cp. the Germanic comparatives in *-az-en-* formed from the instr. sing. in *-ō* § 81, and the Slavonic comparatives in *-ě-jě* which came from the instr. sing. in *-ě* § 135), and their use became gradually restricted to words in which the *ω* followed a short syllable. A few remaining examples of the freer use occur in literature, as *οἰζυρώτερος* (Hom.), *δυσποτιμώτερος* (Eur.) and several others. The *-ο-* of *κενóτερος στενóτερος* in later Attic is a reminiscence of the early Attic forms **κενφό-ς* **στενφό-ς*, see p. 135 footnote.

1) A different explanation of *ἄτερο-ς ἔτερο-ς* is given by Per Persson, *Studia etymol.* p. 102; but his arguments do not convince me.

Brugmann, *Elements*. II.

-ωτερο-ς was sometimes grafted upon other classes of stems, e. g. *ἐπιχαριτ-ώτερο-ς* 'more charming' from *ἐπίχαρις*.

The termination *-εστερο-ς* (*ἀληθές-τερο-ς*) was very largely extended in use as an independent suffix, e. g. *εὐδαιμον-έστερο-ς* 'happier' from *εὐδάιμων*, *ἀκρᾶτ-έστερο-ς* 'more unmixed' from *ἀκρᾶτος*, *ἐρρωμεν-έστερο-ς* 'stronger' from *ἐρρωμένος*.

Comparative suffixes were often combined. Parallel to *ἀρ-ισ-τερό-ς* (see p. 190) arose *λαλ-ιστερο-ς* 'more talkative' from *λάλος*, *κλεπτ-ιστερο-ς* 'more thievish' from *κλέπτη-ς*, *βλᾶκ-ιστερο-ς* 'lazier', from *βλάξ*, etc.; the spread of these double suffixes was furthered by the similar sound of the termination of *ἀχαρίστερο-ς* = **ἀχαριτ-τερο-ς*. *ἀμεινó-τερο-ς* from *ἀμεινών* 'better', *ἀρειό-τερο-ς* from *ἀρείων* 'better' etc. *κυντερώ-τερο-ς* from *κύν-τερο-ς* 'more like a dog, more impudent', *ὑπεριτερώ-τερο-ς* from *ὑπέρ-τερο-ς* 'upper', *προτεροῖ-τερο-ς* from *πρό-τερο-ς* 'earlier' (cp. Avest. *fratarō-tara-* p. 191), with other examples.

Comparatives are frequently formed from substantives. *κύν-τερο-ς* from *κύν* 'dog'. *βασιλεύ-τερο-ς* 'more royal' from *βασιλεύς* 'king'. *δημό-τερο-ς* 'belonging to the people' from *δῆμος* 'people', *ὄρέσ-τερο-ς* 'of the mountains' from *ὄρος* 'mountain' and the like, where the comparative suffix, just as in *ἡμέ-τερο-ς* Avest. *ušas-tara* O.H.G. *nī-daro*, only served to contrast the words with their opposites (cp. § 139).

Italic. Lat. *s-uperu-s s-uprā s-uprē-mu-s* Umbr. *subra* 'supra' Osc. *supruis* 'superis', beside Lat. *s-uper*, with the by-form *s-up-ter* (written *subter*), like O.H.G. *afar* beside Goth. *afar* (for the *s-* of *s-up s-uper* see I § 568 p. 425): Skr. *úpura-s* etc., see p. 189 above. For Lat. *īnferu-s īnfrā*, which are usually connected with Skr. *ádharma-* Goth. *undarō*, see § 72 p. 167, under Aryan.

Lat. *in-ter-ior in-trā in-trō*, Osc. *entraí* dat. fem. 'intestinae, *ἐμρυλίω*': Skr. *án-tara-* etc., see p. 189 above. Lat. *i-teru-m*, the stem of which is contained in Lat. *mātertera* (quasi *mater altera*) for **mātēr-iterā*, Umbr. *etram-a* 'ad alteram': Skr. *ī-tara-s* 'other', perhaps also Goth. *idr-eiga* 'repentance' O.Icel. *idra-sk* 'repent'. Lat. *ex-ter ex-trā* Osc. *eh-trad* 'extra', beside Lat. *ex*:

O.Ir. *echtr-ann* 'foreign, stranger'. Lat. *ci-ter ci-trā ci-trō*: Goth. *hi-drē* 'hither'. Lat. *pos-teru-s postrī-diē postrē-mu-s* Umbr. *postra* acc. fem. 'posteriores' Osc. *pústiris* 'posterius', from Ital. *pos pos-t*; it is perhaps better to analyse the word *post-eru-s*. Lat. *con-trā contrō-versia* Osc. *contrud* 'contra', beside Lat. *cum* Osc. *con*. Umbr. *hon-dra* 'infra' Osc. *hu[n]-truis* 'inferis', cp. Lat. *humu-s*, and Umbr. superl. *hon-domu* § 73 p. 179. Umbr. *pretra* acc. fem. 'priors', beside Lat. *prae-ter*.

Lat. *u-ter u-tra* (I § 431 Rem. 3 p. 321) Umbr. *podruh-peī* 'utroque' Osc. *pútúrús-píd* 'utrique' (for **potro-*, see I § 271 p. 218, § 627 p. 471): Skr. *ka-tará-s* etc., see p. 190 above. Lat. *al-ter altera altrin-secus* Osc. *alltram* 'alteram', beside Lat. *al-iu-s* (cp. § 63, 3 p. 132).

Lat. *nos-ter nostra, ves-ter vestra*, Umbr. *vestra* abl. 'vestra', Osc. *nistrus* 'nostros' (according to Bugge; 'propiores' according to Bücheler): cp. Gr. *ἡμέτερος ὑμέτερος*.

Lat. *dex-ter dextera* and *dextra*, Umbr. *destram-e* 'in dextram': cp. O.Ir. *Dechter* a woman's name (Zimmer, Kuhn's Ztschr. XXX 214) and Gr. *δεξι-τερός* 'dexter' (formed like *ῥή-τερος*). Umbr. *nertru* abl. 'sinistro': Gr. *νέφ-τερος ἐνέφ-τερος* 'deeper' beside *ἐνέφ-θε* (cp. p. 192); as to the meaning 'left', see Bücheler *Umbrica* p. 76 f.

Here perhaps should also be classed *palūs-ter*, from *palūd-*, *Nemes-tr-īnu-s*, from *nemus*, Volsc. *Veles-trom* 'Veliternorum', beside Gr. *ἐλος* 'low ground'; so also Lat. *campester terrester silvester* and the like, which are to be compared with the Gr. *ἐνδαμνον-έστερος* (p. 194).

Combinations of comparative suffixes. *-is-tero-*: Lat. *sin-is-ter -tra* see p. 190, Lat. *magister magistrī* Umbr. *mestru* fem. 'maior', beside Lat. *magis* Osc. *mais* 'magis'; Lat. *minister ministrī* Osc. *minstreis* 'minoris', beside Lat. *minus*; cp. § 135. Lat. *inter-ior dexter-ior* and the like, Osc. *pústir-is*. Lat. *suprē-mu-s extrē-mu-s* and the like (cp. § 72 p. 168) and *postrē-m-issimu-s* (cp. § 73 p. 179).

Old Irish. *ar n- far n-* poss. 'our, your', orig. gen. pl.

like Lat. *nostrum vestrum*: cp. Armen. *mer jer* Goth. *unsar izvar*.¹⁾

in-a-thar Corn. *enederen* 'intestines' O.Ir. *eter etir* 'between': cp. Skr. *an-trā-m* etc., see above p. 189. *ōchtar uachtar* n. 'that which is above, the upper part', beside *ōs uas* 'above'. *echtrann* 'a stranger' from *ech-tar* 'extra' (*-tar* for **-trā*): Lat. *extero-extra*. *air-ther* 'former, the east', from *ar air* 'ante'.

cech-tar 'each of two' from *cech* adj. 'each'. *nech-tar* 'one of two' from *nech* 'one'.

-ther is also found side by side with *-iu* (§ 135) in adjectival comparative forms, yet it is comparatively much rarer than in Aryan and Greek: *luathi-ther* from *luath* 'quick', *libri-ther* from *lebor* 'long' and so forth. It occurs also in comparatives formed from substantives: Mid.Ir. *mētither* 'larger' from *mēt* f. 'size'.

-is-tero-. *sinser* 'older, oldest', ground-form **sen-is-tero-*, cp. *sin-iu* 'older' Lat. *sen-ior*. *ōser* 'younger, youngest' ground-form **ja'y-is-tero-*, cp. *ōa* 'younger' Skr. *yāv-iyas- yāv-iṣ-ṭha-*.

Germanic. Goth. *uf-arō* 'over' A.S. *uf-er-ra* 'upper': Skr. *ūp-ara-* etc., see p. 189 above. Goth. *und-arō* 'underneath' O.H.G. *unt-aro untero* 'lower' (adj.): Skr. *ādḥ-ara-* etc., see p. 189 above. A.S. *af-era eafora* O.Sax. *abaro* 'offspring': Skr. *āp-ara-* etc., see p. 190 above. O.H.G. *ūz-ro ūzaro ūzero* A.S. *ūt-ra ūter-ra* 'outer': Skr. *ūd-ara- ud-arā-* etc., see p. 191 above. O.H.G. *sīd-ero* A.S. *sīdra* 'later' (adj.), beside O.H.G. *sīd* 'late, later'.

Goth. *uns-ar* 'our' fem. *unsara*, *izv-ar* 'your' fem. *izvara*, O.H.G. *unsēr iuwēr*; *unsro* (nom. pl. fem.) *unsrēm* (dat. pl.) and the like, show the West-Germanic syncope: cp. Armen. *mer jer*, O.Ir. *ar n-*, *far n-*.

Goth. *vi-þra* O.H.G. *wi-dar* 'against, with-' (in composition):

1) "*ar n-* and *far n-* no doubt stand for **(s)arom* **(s)uarom*, since *s* disappears before a vowel which precedes the accent (cp. *it* = **senti*). We find in Mid.Ir. *sar*, accented, in Ps. 2, but *nar* in Ps. 1. I suppose **sarom* **suarom* to have arisen in proclitic positions, from forms like the Goth. *unsar izvar*, by loss of the initial sonant (*uns-* for *ṛs-*), just as Romance *lo* came from *illum*, *loro* from *illorum*." Thurneysen.

Skr. *vi-tará-m*. O.H.G. *ni-daro* A.S. *ni-ðer-ra* 'lower' (adj.):
 Skr. *ni-tará-m*. O.H.G. *for-dro fordaro fordero* A.S. *furdra*
 'former' ground-form **př-tero-*, beside Goth. *faúr faúra* 'before'.
 O.H.G. *hin-taro* 'hinder' beside Goth. *hin-dar* 'behind', cp. A.S.
 superl. *hin-dema*. Goth. *af-tarō* 'from behind' *aftra* 'back' O.H.G.
aftro aftaro aftero 'hinder part' beside Goth. *afar*. Several ad-
 verbial terminations derived from *-tero-* show considerable fertility,
 e. g. Goth. *hi-drē* 'hither' (Lat. *ci-trō ci-trā*) *jáin-drē* 'thither',
jáin-prō 'thence', *alja-prō* 'from some other place' *dala-prō* 'from
 beneath'. With regard to several adverbs in *-ar*, like Goth.
af-ar hin-dar, we cannot tell whether they are acc. sing. neut.
 (cp. Skr. *pratarám* Gr. *πότερον* Lat. *iterum*) or are parallel to
 forms like Gr. *ἑνὲρ* Skr. *upári*.

Goth. *hva-þar* O.H.G. *hwedar wedar (wederemo wederan)*
 'which of two?': Skr. *ka-tará-s* etc., see p. 190 above. Goth.
an-þar O.H.G. *andar (andremo andran* with West Germanic
 syncope) 'other': Lith. *añ-tra-s* 'other'.

Combination of comparative suffixes. O.H.G. *win-is-tar*
 'left', see p. 190 above. *-(t)ero- + -ies- -is-*: O.H.G. *unt-arōro*
 beside *unt-aro*, *for-drōro* beside *for-dro* and the like, A.S. *ūt-*
-er-ra beside *ūt-ra*, *æfter-ra* beside *æft-ra*, etc. O.H.G. superl.
unt-arōsto from *unt-aro*, *for-darōsto* from *for-dro fordaro*, *af-tristo*
 from *af-tro* and the like.

Remark. O.Icel. *aus-tr* 'east' O.H.G. *ōs-tra* *ōs-tara* f. 'Easter' *ōstar*
 'eastwards' (*ōstar : ōstana* = *hintar : hintana*), A.S. *eástra eásterra* 'more
 easterly', also Goth. *Ōstro-gotha*: cp. Lat. *aus-ter austr-āli-s*, and further
 Avest. *ušas-tara-* 'easterly'. Should we consider the Germanic and the
 Latin word as the extension of a noun-stem **aŷs-to-* by *-ero-*, or as
 derivatives in *-tero-* from an adverb **aŷs*, or as the regular phonetic re-
 presentatives of a form **aŷs-(e)s-t(e)ro-*? In Germanic the names for the
 other quarters of the heavens are exactly parallel to the word for east,
 so far as their inflexional part is concerned, cp. e. g. O.Icel. *vestr norðr*
suðr, A.S. compar. *westerra norðerra suðerra*. *norðr* appears to be con-
 nected with Gr. *νέτερος* Umbr. *netro-*. In proper names we find also
Ausi- Auri- beside *Austro- Astar-*, and *Wese- Wisi-* (*Wese-gothae Wisi-*
gothae) beside *Westar-*.

Balto-Slavonic. *-ero-* cannot be identified with certainty.
 Perhaps in O.C.Sl. *sěv-erŭ* Lith. *sziau-r-ỹ-s* 'north wind'?

O.C.Sl. *jě-tro* 'liver' from Idg. **en* 'in', and beside it *a-tro-ba*

f. 'intestines, belly' *q-tr-ī* adv. 'inside' beside O.C.Sl. *vŭ* for **on*, cp. p. 189. O.C.Sl. *ju-tro u-tro* 'morning' loc. *jutrě utrě* 'tomorrow', from *ju u* Lith. *jaũ* 'iam' (whence also O.C.Sl. *junũ* Lith. *jáuna-s* 'young', see § 66 p. 149).

Lith. *ka-trà-s* 'which of two, which, who?' O.C.Sl. *ko-tery-jĩ ko-tory-jĩ* 'who?': Skr. *ka-tará-* etc., see p. 190 above, Lith. *añ-tra-s* 'other, second' fem. *antrà*: Goth. *an-þar*; in O.C.Sl. *vũ-torũ*, which corresponds in meaning, the form of the root is unexplained. O.C.Sl. *je-terũ* 'any one', from the pronominal stem *je-*: Skr. *ya-tará-*, relat. 'which of two'.

§ 76. The Suffix *-lo- -lā-, -llo- -llā-*.¹⁾

For the variation between *-llo-* and *-lo-* see I § 287 p. 229.

In the proethnic and later periods it is both primary and secondary, forming adjectives and substantives. In its primary use *-lo-* serves especially to form nouns of the agent and instrument; as a secondary suffix it is used especially to form diminutives: in the latter use *-lo-* was exceedingly fertile in Latin, Germanic and Lithuanian.

Indo-Germanic. Skr. *tu-rá-* 'mighty, strong' *tū-la-m* 'panicle, tuft, reed, cotton' *tū-lā* 'cotton plant', Gr. *τῷ-λο-ς* *τῷ-λη* (also *τῷ-λη*) 'swelling, lump', Lith. *tū-la-s* 'so many', i. e. 'a good number of' O.C.Sl. *ty-lŭ* 'neck', √ *tey-* 'tumere'. Skr. *ci-rá-* 'long', *ci-rá-m* 'delay, delaying', Goth. *hvei-la* 'while, time'. Armen. *dai-l da-l* 'beestings', Gr. *ῥη-λη* 'mother's breast', Lat. *felare*, O.Ir. *de-l* 'teat', O.H.G. *ti-la* 'woman's breast', Lett. *dē-l-s* (stem *dē-la-*) 'son' Lith. *pirm-dē-l-ẽ* 'one that has borne a child for the first time', √ *dhē(i)-* 'suck'; cp. also Gr. *ῥη-λυ-ς* 'suckling, female' Skr. *dhā-rú-ṣ* 'sucking' with *-lu-* (§ 107). Gr. Lac. *ἐλλᾶ* 'seat' for **ēd-lā* (I § 364 p. 277), Lat. *sella* for **sed-lā* (I § 369

1) Besides the authorities given in the footnote on p. 180 cp. Osthoff, Die Suffixform *-sla-*, vornemlich im German., Paul-Brauno's Beitr. III 335 ff.; Vogel, Lateinische Deminutiva auf *-ulus*, Mitau 1876; Lissner, Über den Suffixcomplex *-ti-li-* im Lat., Eger 1874; von Paucker, Die [lat.] Deminutiva mit dem Suffix *-culus, a, um*, Ztschr. f. österr. Gymn. 1876 p. 595 ff., and the same writer, Die [lat.] Deminutiva mit doppeltem *i* (*-ellus, -illus, -ullus* etc.), Kuhn's Ztschr. XXIII 169 ff.

p. 280), Goth. *sit-l-s* 'seat', O.C.Sl. *selo* 'fundus' (Lower Sorb. *sedlo* 'seat' Upper Sorb. *sydlo* 'abode' Czech *sed-l-ák* 'peasant') for **sed-lo-* (I § 548 p. 402). Idg. **ghes-lo-* **ghes-l-ijo-*: Skr. *sa-hásra-m* 'thousand' *sa-hasríya-s* 'thousandfold', Gr. *δεκά-χίλοι* 'ten thousand' Lesb. *χέλλιοι* Dor. *χήλιοι* Att. *χίλιοι* 'thousand' from **χίσ-lo-* (I § 565 p. 423); for the *ι* of *δεκά-χίλοι* and *χίλιοι* I can now refer to Thurneysen, Kuhn's Ztschr. XXX 353.

Gr. Hom. *ομίχ-λη* Lith. *mig-là myg-là* (also *myg-là* with the suffix *-iā-*) O.C.Sl. *mīg-la* 'mist'. Skr. *aj-irá-* 'mobile, quick', compare Lat. *ag-ili-s* (transferred from the *o-* to the *i-* declension), which may represent either **ag-llo-* or **ag-lo-*.

In Italic, Germanic and Balto-Slavonic we frequently find *-s-lo-*, which was taken from forms where *-s-* was the so-called root-determinative, like Lat. *āla* for **axlā* (cp. *axilla*) O.Sax. *ahsla* O.H.G. *ahsala* 'shoulder' beside Skr. *ákṣa-s* O.H.G. *ahsa* Lat. *azi-s* Lith. *aszi-s* 'axle' for **ag + s-* from **ag-* 'drive, set in motion'; O.H.G. *dehsala* O.C.Sl. *tesla* 'axe' beside Avest. *taša* 'axe' Gr. *τόξο-ν* 'bow' O.H.G. *dehsa* 'hatchet, trowel' from **tek- + s-*.

In the same way were formed e. g. Lat. *vēlu-m* 'sail' (cp. *vexillum*) O.C.Sl. *veslo* 'oar' from **uegh + slo-* ('means of moving'), *✓uegh-* 'vehere'.

-lo- as a secondary suffix. Skr. *nabhīla-m* 'puddenda, navel', Gr. *ομφαλό-ς* 'navel, boss of a shield', Lat. *umbil-īcu-s*, O.Ir. *imbl-iu* 'navel', O.H.G. *nabolo* O.Icel. *nafla* m. 'navel', beside Skr. *nābhi-ś* 'nave, navel', Lat. *umbō* 'boss of a shield', O.H.G. *naba* 'nave', Pruss. *nabi-s* 'nave, navel' Lett. *nabba* 'navel'. Skr. *tūm-ra-* 'swelling, fat, strong', Lat. *tumulu-s*, O.Icel. *þumall* m. 'thumb', beside Skr. *tū-tu-mā-* Avest. *tū-ma-* 'strong, powerful' etc., see § 72 p. 171. Skr. *bahu-lā-* 'thick' Gr. *παχυ-λό-ς* 'rather thick', beside Skr. *bahú-ś* Gr. *παχύ-ς* 'thick'. Skr. *an̥ku-rá-s* 'a swelling, tumour', Gr. *ὀγκύ-λο-ς* 'swollen, proud' (whence *ὀγκύλλομαι*) *ἀγκύ-λο-ς* 'crooked' (older accentuation **ὀγκυλό-ς* **ἀγκυλό-ς*, see I § 676, 4 p. 542 f.); we should perhaps also compare O.H.G. *angul* O.Icel. *ongull* m. 'fishhook, angle', pr. Germ. **an̥gulá-*, cp. Skr. *an̥ku-śá-s* 'hook'. The diminutival sense is clearly marked e. g. in Lat. *porculu-s* *porcil-ia* O.H.G. *farhel-i* n. Lith.

parszēl-i-s 'little pig, sucking pig' compared with *porcu-s farah pařsza-s* 'pig', Lat. *rotula* Lith. *ratēl-i-s* 'little wheel' beside *rota rāta-s* 'wheel' (the diminutival sense of the *l*-derivative in Lithuanian is certainly older than the addition of the further suffix *-lō-*, although the latter is also a diminutive suffix, see § 63, 2). Here belong also pet-names like Skr. *bhānu-la-* Gr. *Θρανό-λο-ς* O.Ir. *Tuath-al* Goth. *Vulfi-la* Pruss. *Butil*, for which see below.

The termination *-e-lo-* is exceedingly common and certainly dates from the protoethnic period of Indo-Germanic, but in many cases we cannot tell whether the stem to which it is added is verbal or nominal.

Aryan. Skr. *sthū-rā- sthū-lā-* 'massive, strong, rough, stupid': Gr. *στῦ-λο-ς* 'pillar'. Skr. *has-rā-* 'laughing', with which Windisch would compare Gr. *χεῖλο-ς* n. 'lip' for **χῆσ-λ-ος*. Avest. *tiy-ra-* 'point': Goth. *stik-l-s*, see below. Avest. *stax-ra-* 'strong, firm': O.H.G. *stah-al*, see below. Skr. *sa-hásra-m* Avest. *ha-zat̰re-m* 'thousand': Gr. Lesb. *χέλλ-ιοι*, see p. 199 above. Skr. *gō-la-s* 'ball', *gō-la-m gō-lā* 'spherical water-vessel': Gr. *γαν-λό-ς* 'pail, vessel' *γαῦ-λο-ς* 'trading ship' (O.H.G. *chiol* and O.Icel. *kjöll* 'ship' can hardly be compared with this group of words; their vocalism seems to shew that they come from a different root). Avest. *zaf-ra-* n. (beside *zafar**) 'mouth, throat': O.Sax. *kaf-l* A.S. *ceaf-l* m. 'jaw' (of animals).

-lō-. Skr. *ajirá-s*; see above. *suš-irá-s šuš-irá-s* (see I § 557, 4 p. 413) 'hollow, a reed', n. 'hole, wind instrument': Gr. *αὐλ-ός* 'reed, pipe, flute' for **αυσ-λο-ς*. Skr. *āṅgira-*, name of divine beings who were regarded as mediators between men and gods: Gr. *ἄγγελος* 'messenger': the *g* of the Skr. form implies that the original form was not **āṅga-lo-* (cp. Skr. *āni-la-s* 'wind' Gr. *ἄνε-μος* for **anə-*, beside Skr. *āni-mi*), but **āṅg-lō-*, see I § 445 p. 331, § 450 p. 333 f. We should no doubt add *tum-ura- tum-ula-* 'loud, noisy' beside *tum-ala-*, with the same meaning (cp. *trpā-la* beside *trp-rā-* 'restless, anxious'): Lat. *tumul-tu-s*: the word is usually connected, and perhaps rightly, with Skr. *túm-ra-* 'swelling puffed up' (see p. 198 above.)

-lo- in secondary use. Skr. *nābhīla-m*, *tūm-ra-* (ultimately also *tum-ura-*), *bahu-lā-*, *aṅku-rā-s*; see above. Further, with diminutive sense, *vṛṣa-lā-s* 'mannikin, small man' (*vṛṣan-* 'man'), *śiśu-lā-s* 'little child' (*śiśu-ṣ* 'child'), *śalaka-lā* 'small splinter' (*śalāka* 'splinter'). Add pet names like *bhānu-la-* cp. *bhānu-datta-*, *piṭṭy-la-* cp. *piṭṭy-datta-*, *dēvila-* cp. *dēva-datta-*.

Remark 1. We may add here a number of forms from Aryan, in which it is doubtful whether the suffix is Idg. -ro- or -lo-, cp. § 74 p. 182.

Skr. *dū-rā-* Avest. O.Pers. *dū-ra-* 'distant'. Skr. *krū-rā-* 'bloody, wounded, cruel, gruesome', Avest. *xrū-ra-* 'wounding, horrible'. Skr. *śrī-lā-* 'beautiful' *a-śrī-rā-* *a-śīla-* 'not beautiful, ugly' Avest. *sri-ra-* 'beautiful', cp. compar. Skr. *śrē-yas-*. Skr. *uy-rā-* Avest. *uy-ra-* 'strong, mighty'. Skr. *āg-ra-m* Avest. *ay-re-m* 'beginning'. Skr. *kṣip-rā-* 'quick', *miṣ-rā-* 'mixed' *ā-miṣ-lā-* 'intermingling', *vak-rā-s* 'crooked', *pā-lā-s* 'protector, herdsman', *rāndh-ra-m* 'opening'. Avest. *hix-re-m* 'fluid, impurity'.

-fro- -llo-. Skr. *dhvas-irā-* (beside *dhvas-rā-*) 'scattering', *mad-irā-* 'gladdening', *sar-irā-* *sal-ild-* 'flowing, undulating', n. 'wave, flood', *tṛd-ild-* 'perforated, porous'. In Iranian the regular phonetic development reduced -fro- -llo- and -e-ro- -e-lo- to one form -ara-, and they are thus indistinguishable.

-ro- -lo- in secondary use; Skr. *āsu-ra-* Avest. *ahu-ra-* O.Pers. *au-ra-* (in *aura-mazdah-*) meaning perhaps 'lord', epithet of divinities, compared with Skr. *āsu-* 'vital spirit'; for the etymology of the word see von Bradke, Ztschr. der deutsch. morg. Ges. XL. 347 ff. Skr. *pāsu-rā-* 'dusty' (*pāsu-ṣ* 'dust'). *madhu-ra-* *madhu-lā-* 'sweet' (*mādhu* 'sweetness, honey'). *muṣka-rā-* 'having testicles' (*muṣkā-s* 'testicle'). *phēna-lā-* 'foamy' (*phēna-s* 'foam'). In the following words the primary stem has no final -a-: *dhūm-rā-* 'gray' (*dhūmā-s* 'smoke'), *rath-irā-* 'travelling in a chariot' (*rātha-s* 'chariot'), *phēn-ila-* beside *phēna-lā-* 'foamy'.

The addition of -ra- -la- to stems in -van- is particularly common. The combination -vara- -vala- (cp. p. 182 for Skr. *pivara-* Gr. *πτερό-*; = Idg. **pi-ye-ró-*) was taken into common use as an independent suffix. Skr. *adhvarā-s* 'festal gathering' (*ādhan-* 'way') *it-varā-* 'going' (*itvan-* 'going'), and further *vid-valā-* 'clever' (*vid-* 'know'), *kṛṣi-valā-* 'husbandman' (*kṛṣi-ṣ* 'husbandry') and other words. -varī is a common fem. termination from adjectives in -van-; e. g. *yāj-varī* from *yāj-van-* 'pious', *ṛtāvarī* Avest. *ašāvairi* from *ṛtāvan-* *ašāvan-* 'pious'. In Avestic, certain nom.-acc. neut. end in -varē, e. g. *miṣ-warē* from *miṣ-wan-* n. 'pair', *karš-varē* from *karš-wan-* n., the name for the seven divisions of the earth: cp. Gr. *nī-(F)aq* 'fat' beside *πτερό-*; *πτερό-*.

Compare with this -vara- -vala- Skr. *admard-* 'ravenous' from *ād-man-* n. 'food', *sidhmald-* 'leprous' from *sid-man-* *sid-mā-* 'leprosy'; further, O.H.G. O.Sax. *himil* beside Goth. *himin-s* 'heaven', A.S. *ðymel* 'thumb-stall, finger-guard' beside *ðūma* m. (acc. *ðūman*) 'thumb'.

Armenian *dai-l da-l* 'beestings': Gr. *θηλή* etc., see above p. 198.

Here too no doubt belong infinitives in *-l*, as *ta-l* 'to give' (indic. *ta-m*), *bere-l* 'to carry' (*bere-m*), *meṭani-l* 'to die' (*meṭani-m*).

Greek. *στῦ-λο-ς* 'pillar': Skr. *sthā-rā- sthā-lā-*, see above p. 200. *πῖ-λο-ς*, 'felt': Lat. *pi-lu-s* 'hair' and the derivative *pīleu-s* 'felt' (also written *pilleus*, see I § 612 p. 463 ¹). *καυ-λό-ς* 'stalk': Lat. *cau-lae* pl. 'cavities' (cp. also Lat. *cau-li-s* 'stalk'), Lith. *káu-la-s* 'bone'. *ζεύ-λη* 'yoke-ring, thong': cp. Lat. *jug-ulae* pl. 'Orion's girdle of stars'. *τυφ-λό-ς* 'blind'. *στρεβ-λό-ς* 'twisted'. *ἐκ-παγλο-ς* 'awful, terrible' for **ἐκ-πλεγ-λο-ς*, from *ἐκ-πλεγ-ῆναι*, see I § 266 p. 215. *φῦ-λο-ν* 'stem, race' *φῦ-λή* 'community' *ἄθ-λο-ς* *ἄθ-λο-ς* 'contest' *ἄθ-λο-ν* *ἄθ-λο-ν* 'prize'. *στρέβ-λη* 'roll, roller'.

By the side of the adjectives in pr. Gr. *-η-ρο-ς* (§ 74 p. 184) there were others in *-η-λο-ς*, like Hom. *κατα-ρῖγγλό-ς* 'making one shudder, terrible' (*κατα-ρριγγέω*), *μιμηλό-ς* 'imitative, imitated' (*μιμῆσθαι*), including such substantival *nomina agentis* as *κάπηλο-ς* 'huckster', Lac. *δείκηλο-ς* (and the extended form *δεικηλικτῶ-ς*) 'actor'. Cp. Lat. *cicindēla* (below, Remark 2) and Lith. *tekė-la-s* beside *tekė-ti* (see below).

πῦλο-ς 'fat', like *πῦαρό-ς*, from *πῦαίνω* (see § 74 Rem. p. 185), extended *πῦαλέο-ς* 'fat' (see § 64 p. 135); like the latter are formed *ἱκμαλέο-ς* 'damp', from *ἱκμαίνω*, *κρῖμαλέο-ς* 'frosty', from *κρῖμαίνω*, *δειμαλέο-ς* 'timid, terrible' from *δειμαίνω*, and many other similar words.

-λλο-. *κεφ-αλή* beside *κέβ-λη* 'head': Goth. *gib-la* m. 'spire' O.H.G. *gebal* m. 'skull, head', √ *ghebbh-*. *πέτρ-υλο-ς* 'outspread' *πέτρ-αλο-ν* 'leaf'. *αἶθ-αλο-ς* 'soot'. *κρέμβ-αλο-ν* 'rattle'.

-λο- *-λλο-* in secondary use. *παχν-λό-ς*, *ὀγκύ-λο-ς*, see p. 199. *ῥόδύ-λο-ς* 'sweetish' (*ῥόδύ-ς* 'sweet'), *δρῖμύ-λο-ς* 'somewhat sharp' (*δρῖμύ-ς* 'sharp'), both with shifted accent like *ὀγκύ-λο-ς* (see I § 676, 4, p. 542 f.). *δανλό-ς* 'thickly overgrown' for **δασυ-λο-ς*, from *δασύ-ς* 'thickly grown', *τραυλό-ς* 'lispings, snarling, stuttering'

1) In the first sentence of this section of the English edition (p. 462) instead of 'nasal liquid explosive or sonant', read 'nasal liquid explosive or spirant' (Geräuschlaut).

for **τρασν-λο-ς* beside Skr. *त्रसु-* 'brisk, impetuous' (Wheeler, Der griech. Nominalaccent 63). *όμ-αλό-ς* 'smooth, even', from *όμός*: Lat. *simili-s*, for older **sem-lo-* or **sem-llo-*. *χαμ-αλό-ς* 'low', beside *χθον-* 'earth' for **χθου-* (I § 204 p. 172, II § 160, 2): Lat. *hum-ili-s*. Words like *παχν-λό-ς*, where *-λο-* acts as a diminutive suffix, gave rise to a number of new formations, most of which however appear only in later Greek; as *μικκ-ύλο-ς* 'small', from *μικκός*, *ἀρκτ-ύλο-ς* 'young bear', from *ἄρκτος*; and to extended formations with *-ίο-* like *καθαρ-ύλλο-ς* 'cleanly' (*καθαρός* 'clean'), to which again a further diminutive suffix was added, e. g. *ἀνθ-ύλλ-ιο-ν* 'floweret' (*ἄνθος*), *ἐπ-ύλλ-ιο-ν* 'small poem' (*ἔπος*). Pet names with *-λο-* are common. *Ὀνησί-λο-ς* cp. *Ὀνησι-κράτης*, *Ταξι-λο-ς* cp. *Ταξι-κλῆς*; hence *-ιλο-ς* became an independent ending, e. g. *Σω-ῖλο-ς* cp. *Σω-κράτης*. Further, we have names of this kind extended by *-ίο-* as *Τέρψι-λλο-ς*, cp. *Τερψι-κλῆς*; then *-ιλλο-ς* also became an independent ending, as *Δόρ-ιλλο-ς* cp. *Δορύ-λᾱος*. *Θρασύ-λο-ς* cp. *Θρασύ-μαχος*, *Βαθύ-λο-ς* cp. *Βαθύ-λᾱος*, hence such forms as *Ἀγ-ύλο-ς* *Ἡγ-ύλο-ς* cp. *Ἀγέ-στρατο-ς* *Ἡγέ-στρατο-ς*; with the *-ίο-* extension we have e. g. *Βάθ-υλλο-ς* beside *Βαθύ-λο-ς*, hence forms like *Νίκ-υλλο-ς* cp. *Νίκο-μήδης*.

We may regard either as primary or as denominative formations adjectives in *-ā-lo-*, such as *σιγηλό-ς* (Pind. *σιγᾱλό-ς*) 'silent, quiet' beside *σιγᾱώ* 'I am silent' and *σιγή* 'silence', *ἀπατη-λό-ς* 'deceitful' beside *ἀπατάω* 'I deceive' and *ἀπάτη* 'deceit', cp. *-ā-ro-* § 74 p. 184 f. The same is generally true of forms in *-ε-lo-* = Idg. *-e-lo-*, e. g. **τραπ-ε-λό-ς* 'turning' in *ἐν-τράπελο-ς* 'turning easily': Lat. *torculu-s* for **torcu-lo-* (I § 431 c p. 320 f.); *στυφ-ε-λό-ς* beside *στυφ-λό-ς* 'solid, compact, firm, hard'; *εἶκ-ε-λο-ς* 'like, similar'; *μῦ-ε-λό-ς* 'marrow'; *σκόπ-ε-λο-ς* 'rock'; *νεφ-έ-λη* 'cloud': Lat. *nebula*, O.Ir. *nēl* 'cloud' for **neb-lo-*, O.H.G. *neb-ul* m. 'cloud'; *ἀγ-έ-λη* 'herd': cp. O.Lat. *agolo-* n. 'pastorale baculum, quo pecudes aguntur' (Paul. Fest.). The *-λο-* of *-ε-lo-* can be more certainly identified as a secondary suffix in *πῖ-με-λη* 'fat' and *θ-υ-μέ-λη* 'place of offering', to be compared with *ή-μέ-ρα* and similar words, but in no other examples.

Italic. Ital. **fē-lo-* in Lat. *fēl-are* *fīl-ius*, Umbr. *feliuf filiu* acc. 'lactantes' *fel.* (abbreviation) 'filius': Gr. *ῥη-λῆ* 'mother's breast', Lett. *dē-l-s* 'son' etc., see above p. 198. Lat. *sella* for **sed-lā*: Gr. *ἑλλᾶ* etc., see above, p. 198 f. *grallae* 'stilts', compared with *gradior.* *rallu-m* (*ā*?) 'ploughshare' beside *rādula* 'scraper' (is this for orig. **rad-lla*, or a new formation of later date?) from *rādō*; also *rallu-s* (*ā*?) 'close shorn'. *caelu-m* 'chisel' from *caedō*. *pīlu-m* 'pestle' for **pīns-lo-m* (I § 208 p. 175 f.). *exem-p-lu-m* (from *eximō*, 'something taken out', hence) 'specimen, type', *tem-p-lu-m* (cp. Gr. *τέμνω*, 'something cut off', hence) 'holy precinct, temple', with -*p-* as a glide sound (I § 208 p. 175). *assecla*, from *assequor*.

-*ulo-* *ulā-* are very frequent in Latin. In the forms *assecula* beside *assecla*, *vinculu-m* beside *vinclu-m*, *torculu-s* (*torqueō*), *coculu-m* (*coquō*), as in *trāgula* (*trahō*), -*ulo-* -*ulā-* were developed from -*lo-* -*lā-* during the Latin period, see I § 269 p. 218, § 431 c p. 320 f., § 509 p. 373. Elsewhere it is doubtful, whether Idg. -*lo-* or -*llo-* or -*e-lo-* was the original suffix; e. g. in the *nomina instrumenti*, like *capulu-s* *capulu-m* *ex-cipulu-m* (cp. O.H.G. *hev-ilo* 'yeast', the means of making something rise), *cingulu-m* *cingula*, *tēgulu-m* *tēgula*, *cōpula*, *rēgula*. Further, in substantival *nomina agentis*, as *figulu-s* 'potter' *legulu-s* 'gatherer', and adjectival *nomina agentis*, which usually imply a culpable tendency to some action, as *bibulu-s*, *crēdulu-s*, *gemulu-s*, *tremulu-s*, *pendulu-s*: cp. Goth. *sakul-s* 'quarrelsome' and the like; see below. In a few cases also it is conceivable that the suffix may represent Idg. -*u-lo-*. Where there has been a transference from the *o-* to the *i-* declension, -*ili-* appears, instead of -*ulo-*. Thus we have *agili-s*: Skr. *ajirā-s*, see above, p. 199. Similarly *bibili-s*, *fragili-s*, *facili-s*, *docili-s*, *habili-s* etc., and by an extension to the *to-* participle *coctili-s*, *fissili-s*, *flexili-s*, *versatili-s*, *volatili-s* etc.

-*s-lo-* is of common occurrence. *ala*, *vēlu-m*, see p. 199 above. *alu-m* 'wild garlic' for **an-s-lo-m*, cp. O.C.Sl. *ačh-ati* 'to give forth smell' for **on-s-ati*, beside Skr. *āni-ti*. *prēlu-m* for **prem-s-lo-m*, from *premo*. *pālu-s* *pālu-m* for **pac-slo-* or **pāc-slo-*,

from *pac-īsior*, √ *pāk-* 'fasten': cp. Gr. *πάσσαλο-ς* 'peg, nail' as though from a present **πάσσω*, for **πακχω* (cp. *πήσσω*), and hence to be compared in point of formation with O.H.G. *deckel* from *decken* = O.Icel. *þekja*. *scāla* for **scantslā*, from *scandō*. For the phonetic changes in these words see I § 208 p. 175 f., § 570 p. 428.

Remark 2. Osthoff (Paul-Braune's Beitr. III 346) would also derive from *-s-lo-* *-s-lā-* the feminine substantives like *fugēla sequēla querēla*, and *candēla nitēla*, referring, *-ēla* in the former group to **-e-slā* (cp. *fuge-re*), in the latter to **-ē-slā* (cp. *candē-re*), and he compares such Germ. forms as O.H.G. *ruomi-sala* f. *hruomi-sal* n. 'boasting' (see below). This is possible. Still there is nothing to prevent our deriving them from Idg. *-ē-lā-*, and I rather prefer this explanation on account of *cicindēla* 'glow-worm'. This was the feminine of an adjective **cicindēlo-*, which may be compared with Gr. *μυμη-λό-ς*. Accordingly we should regard *candēla* and the other parallel forms as having been originally adjectival.

-lo- *-llo-* is secondary in *simili-s*, *humili-s* (with change of declension, see p. 203 above); similarly *parili-s* from *pār*, *pestili-s* from *pesti-s*, *herbili-s* from *herba*. *nūbilu-s* from *nūbēs*. *angulus*, Umbr. *anglom-e* 'in angulum' for **anc-lo-*, compared with Lat. *ancu-s*; similarly O.Lat. *ungulu-s* compared with *uncu-s*; see I § 499 p. 366. Whether *-lo-* is also secondary in Lat. *famul* *famulus* Osc. *famel* 'servus' *famelo* f. 'familia' (compare Lat. *famil-ia* Umb. *famer-ias* pl. 'familiae') may be left an open question; see Danielsson in Pauli's Altital. Stud. III 178.

This suffix was very fertile in forming diminutives. Lat. *catulu-s* Umb. *katel* 'catulus' *katlu* 'catulum'. Lat. *porculu-s* *porcil-ia* beside *porcus*: O.H.G. *farhel-i* n. Lith. *parszēl-i-s* 'sucking pig'. *rotula* beside *rota*: Lith. *ratēl-i-s*. Other substantives are: *rēgulu-s*, *adulēscēntulu-s*, *ōcūlu-s*, *scūtulu-m*, *glandula*, *nūtrīcula*, *animula*, *mēnsula*; *servolu-s*, *clāvola*; *filiolu-s*, *glōriola*, *līneo-la*. Adjectives: *loquāculu-s*, *valentulu-s*, *frīgidulu-s*, *barbātulu-s*; *helvolu-s*; *ēbriolu-s*, *aureolu-s*. Umbr. *fondlo* 'fonticulus' (*fondlir-e* 'in fonticulis') for **font-lo-*, cp. *adro* I § 499 p. 366. Osc. *Núvlā-* 'Nola' in *Núvlanús* pl. 'Nolani' corresponds to a Lat. form **novola* (beside *novo-s*). We should notice also as examples of different phonetic changes; Lat. *stella* for **ster-lā* (Gr. *ἀστὴρ* 'star'), *puella* for **puer-lā*, *agellus* for **ager-lo-s*,

nigellu-s for **niger-lo-s*, *satullu-s* for **satur-lo-s*, *paullu-s* *paulu-s* for **paur-lo-s* (Gr. *πᾶρος* 'small, little'), see I § 269 p. 216, § 633 p. 473 f.; further *asellu-s* for **asen-lo-s*, *fēmella* for **fēmen-lā*, *bellu-s* for **ben-lo-s* (*bene*), *gemellu-s* for **gemen-lo-s*, *suillu-s* for **suīn-lo-s*, *corōlla* for **corōn-lā*, see I § 208 p. 175; lastly *lapillu-s* for **lapid-lo-s*, see I § 369 p. 280.

In Latin *-lo-* was often added to these diminutives as a further diminutive suffix, e. g. *catellu-s* from *catulu-s*, *cistella* from *cistula*, (*catello-*: orig. **cat-lo-* = **ager-lo-* *agello-*: *agro-*), *agellulu-s* from *agellu-s*, *puellu-la*, *paullu-lu-s*, *tenellulu-s*, *bellulu-s*.

Another suffix in which the diminutive sense was doubly expressed, but which in the historical period of Latin was regarded merely as a single diminutive suffix, arose in proethnic Italic through the addition of *-lo-* to the suffix *-ko-* (§ 88)¹): Lat. *diē-cula*, Osc. *zi-colois* 'diebus' *zi-culud* 'die' (see I § 73 p. 63 f., § 135 p. 123). Other examples from Latin are: *mūs-culu-s* 'little mouse, muscle' (cp. Skr. *muṣ-ká-* 'testicle' *mūṣ-aka-s* *mūṣ-ikā* 'rat, mouse', Armen. *mukn* 'mouse, muscle'), *jūs-culu-m*, *corculu-m* i. e. **cord*+*culu-m*, *māter-cula*, *latrānculu-s*, *corpus-culu-m*, *melius-culu-s*, *īgni-culu-s*, *resti-cula*, *levi-culu-s*.

Old Irish. O.Ir. *de-l* 'teat': O.H.G. *ti-la* etc., see above p. 198. *cē-l* O.Cymr. *coi-l* 'augurium': Goth. *hái-l-s* 'sound, healthy', O.H.G. *hei-l* 'sound, whole', A.S. *hæl* O.Icel. *heill* n. (for **hailiz-*) 'luck, favourable omen', Pruss. *kail-ūstika-n* acc. 'health' O.C.Sl. *čě-lŭ* 'whole, complete'. *něl* 'cloud' for **neb-lo-*, Cymr. *nŷol* 'cloud': Gr. *νιφέλη* etc., see p. 203 above. *coll* m. 'hazel' for **cos-lo-*: Lat. *cor-ulu-s* (*corylu-s*) for **cos-*, O.H.G. *hasal* O.Icel. *hasl* 'hazel'. *temel* 'darkness': Skr. *tam-rá-* 'darkening'. *sī-l* n. 'seed', √ *sē-*. *gabul* *gobul* Mod. Cymr. *gafl* 'forked branch or twig, fork of the thighs'.

-s + *lo-*. *uall* f. 'exaltation, haughtiness' *uasal* 'high, exalted, noble' Mod.Cymr. *uchel* 'high' Gall. *Ūxello-dūnu-m* 'High-town', compared with O.Ir. *ōs uas* Mod.Cymr. *uch* 'above' for **auq-s-* (cp. Lith. *duksz-ta-s* 'high') from √ *auq-* 'increase'; *uall* there-

¹) G. Curtius (Stud. I 1, 259 ff.) treats this combination as older than the Italic period. I cannot regard this as completely demonstrated.

fore = **ayq-s-lā*, on the other hand *uasal* must be compared with Lat. *auxiliu-m*, which represents a form **auxulo-*, cp. *famil-ia*: *famulu-s*, *Caecil-iu-s*: *Caeculu-s*. ciall Mod.Cymr. *pwyl* 'wit understanding' orig. **gei-slā-*, cp. Skr. *ci-kē-ti ci-nō-ti* 'observes, finds out'. Perhaps we should add *giall* 'hostage' pr. Kelt. **gēslo-*: O.H.G. *gīsal* O.Icel. *gīsl* m. 'prisoner of war, prisoner held as a surety', common ground-form **gheislo-*; the etymology of the word has not been explained; the vocalism of the Keltic word is against its connexion with Lat. *haereō*, which Osthoff considered certain (Z. Gesch. d. Perf. 630).

-lo- occurs with diminutival force in pet names, such as *Tuathal* cp. *Tuath-char*; cp. also Gall. *Teutalu-s*, *Camulu-s*, *Toutillu-s*, *Catullu-s*.

Germanic. Goth. *fū-l-s* O.H.G. *fū-l* 'foul': Lith. *pū-lei* pl. 'pus, matter', stem *pū-l-ja-*. O.H.G. *siu-la* f. 'awl, punch': Lith. *siū-la-s* 'thread for stitching' *siū-l-ė* 'seam', perhaps also Gr. *ῥ-λ-ία* pl. 'pieces of leather for shoe soles' (Hesych.). O.H.G. O.Icel. *sei-l* n. 'rope' O.H.G. *si-lo* m. 'straps for draught cattle, harness': Lith. *āt-sei-l-i-s* 'the iron which joins the connecting rod to the axle, the crank', *āt-sai-l-ė* 'connecting pole between the splinter-bar and the axle'. Goth. *stō-l-s* O.H.G. *stuo-l* 'stool, seat': Lith. *pa-stō-la-s* 'stand', pl. 'carpenter's scaffolding', Goth. *stik-l-s* O.H.G. *stechal* m. 'drinking vessel, goblet' (properly used of drinking horns that run to a point, then of other drinking vessels): Avest. *tiy-ra-* 'point'. O.H.G. *hag-al* m. O.Icel. *hag-l* n. 'hail' is presumably to be compared with Gr. *ῥάχλ-ης* 'small stone, pebble'. O.H.G. *stah-al* m. O.Icel. *stal* n. 'steel': Avest. *stax-ra-* 'strong, firm', Pruss. *panu-stacla-n* acc. 'steel for kindling fire'.

Goth. *ag-l-s* 'terrible', beside *ōg* 'I am afraid'. Mid.H.G. *krol*, gen. *krolles* 'in ringlets, curled' pr. Germ. **kruz-lā-*, see I § 582 p. 436. O.H.G. *zī-la* 'line, row', beside *zī-t* pr. Germ. **tī-đī-* 'time'. Goth. *fug-l-s* O.H.G. *fog-al* m. 'bird', for **fluz-la-?*, see I § 277 p. 221. Goth. *þvāh-l* n. 'bath'. Goth. *fatr-veit-l* n. 'stage play'. O.H.G. *scūv-ala* A.S. *sceof-l* f. Dutch *schoff-l* 'shovel', beside O.H.G. *scioban* 'shove, push'.

The following examples probably contain *-llo-*: Goth. *hakul-s*

O.Icel. *hōkull* m. 'mantle' beside O.Icel. *hek-la* 'mantle'. O.Icel. *sqđull* O.H.G. *satul* m. 'saddle'. O.H.G. *snabul* m. 'snout'. Adjectival *nomina agentis* generally imply an inclination to something. Goth. *sakul-s* 'quarrelsome', *slahul-s* (beside *slahal-s*) 'apt to strike', O.Icel. *hugull* (beside *hugall*) 'careful, thoughtful', O.Sax. *slāpol* 'lethargic' *fluzol* 'fleeting' (in O.H.G. *-al*, as *ezgal* 'ravenous', *sprungal* 'saliens'); forms like A.S. *hlaz-ol* 'inclined to laughing' (beside *hliehhan* 'to laugh') indicate that the suffix was originally accented. Also in secondary use, as Goth. *vein-ul-s* 'bibulous' from *vein* n. 'wine' (O.H.G. *wort-al* 'talkative' from *wort* n. 'word').

-s-lo- is frequent; it is nowhere so fertile as in Germanic. O.H.G. *ahsala*, *dehsala*, see p. 199. Goth. *preihsl* n. 'distress', from *preiha* 'I press' for pr. Germ. **preæχō* (I § 214 p. 181). Goth. *skōh-sl* n. 'evil spirit'. Goth. *hunsl* A.S. *hūsel* O.Icel. *hūsl* n. 'offering' for **χyunt-sla-*, compared with Avest. *spent-a-* O.C.Sl. *svetū* 'holy', cp. I § 180 p. 158 (where **χyunt-sla-m* should be read for **χyunt+ila-m*) and § 413 p. 303. O.H.G. *wehsal* m. O.Icel. *vīzl* n. 'change', compared with O.H.G. *wīhhan*. O.H.G. *knuosal* A.S. *cnōsl* n. 'family', cp. Gr. *γρῶ-τό-ς* 'a relative'. O.Icel. *beisl* n. 'bit, curb' ground-form **bhojd + slo-*, beside Goth. *beita* 'I bite'. In particular many nouns were formed in *-isla-* in connexion with verbs in *-jan*, as Goth. *svartizl* n. 'blackness, ink' beside **svartjan* O.Icel. *sverta* 'to blacken', O.H.G. *irrisal* 'error' beside *irren*, *truobisal* 'affliction' beside *truoben* 'to trouble', *ruomisal* and *hruomisala* 'ostentation, boasting' beside *hruomen* 'to boast'. Later the suffix was added to noun stems, as in Mid.H.G. *twanc-sal* 'restriction' from *twanc* 'force', *fluht-sal* 'a fleeing, escape' from *fluht* 'flight'. From the Middle High German period onwards it was regarded as a distinct word in composition. Cp. *-s-tyo-* § 61, *-s-tro-* § 62, *-s-ti-* § 100, *-s-tu-* § 108, *-s-men-* § 117.

Pr. Germ. *-ila-* is very frequent, and difficult to explain with certainty. If Paul (in his Beitr. IV 235) is right in holding that pre-Germanic *-llo-* in the proethnic Germanic period passed sometimes into *-ula-*, sometimes into *-ela-* later *-ila-*,

according to the varying intensity of the accent, then some of the forms in -ila- must be added to the examples given above of Idg. -llo- (with pr. Germ. -ula-), and we could derive Goth. *mikil-s* A.S. *mikil* O.H.G. *mihhil* O.Icel. *mikell* 'great', with Gr. *μεγάλο-*, from a ground-form **meg-llo-*. But this law does not seem to me clearly established. In any case some of the forms with pr. Germ. -ila- are to be referred to Idg. -e-lo-. A certain number may represent an Idg. -i-lo-. If we exclude more or less isolated formations, like the already mentioned *mikil-s*, Goth. *ubil-s* O.H.G. *ubil* 'evil, bad' (perhaps the meaning is 'going beyond bounds, transgressing rules', so that we should compare O.H.G. *ubir* 'over' Gr. *ὑπέρ*), and Goth. *in-ilō* f. 'excuse, motive' (beside *fair-ina* f. 'charge, ground of complaint'), pr. Germ. -ila- is found especially in substantival *nomina agentis* and in diminutives. Hence these two classes may be placed here:

Substantival *nomina agentis*. O.H.G. *brūt-pitil* 'wooer, suitor's advocate' O.Icel. *bidell* 'one who asks'. O.Sax. *crupel* O.Icel. *krypell* 'cripple' ('creeper'), beside O.Icel. *krjūpa* 'to creep'. O.H.G. *tripil* 'charioteer' ('driver'), *putil* 'beadle' ('summoner'), *tregil* 'carrier', *drāhsil* 'turner'. Names of creatures like O.H.G. *wibil* O.Icel. *vifell* 'chafer, beetle' (Mid.H.G. *webelen weberen, wabelen waberen* 'move hither and thither'): cp. Lith. *vāb-ala-s* 'chafer', O.H.G. *tūhhil* 'mergus'. Further, names of tools (cp. § 150), like O.H.G. *meizil* O.Icel. *meittel* 'chisel' ('cutter'), beside Goth. *māitan* 'to cut', O.H.G. *sluzzil* O.Sax. *slutil* 'key' ('shutter'), O.H.G. *slegil* 'mallet', *stōzil* 'pestle, beetle', *driscil*, also fem. *driscila*, 'flail', *spinnila* 'spindle'. -ila- occurs also as a secondary suffix: O.H.G. *reitol wagan-reitol* 'charioteer' from *reita* 'car, carriage'. We have also examples of *nomina agentis* without an *i* preceding the *l*-suffix: O.H.G. *tāhhil* beside *tūhhil*, *staphul* 'grasshopper', *scūwala* 'shovel'.

Diminutives. O.H.G. *bendil* O.Icel. *bendell* m. 'small band, redimicula' Mod.H.G. dial. (Rh.-Frank.) *bendel*, which has lost its diminutive meaning. O.H.G. *stengil* 'stalk' (no longer regarded as a diminutive), from *stanga* 'pole'. The forms have for the most part passed over to the *n*-declension: O.H.G. *scalchilo* m. 'servulus' from *scalch* m. 'servus', *lihhamilo* m. 'corpusculum' from

līhhamo m. 'corpus'; Goth. *mavilō* O.Icel. *meyla* f. 'little maiden' beside Goth. *mavi* f. 'maid, damsel', O.H.G. *niftila* f. 'niece' from *nift* f. 'niece', *turila* f. 'small door' from *turi* f. 'door'; Goth. *barnilō* n. 'little child' from *barn* n. 'child'. Add pet names like Goth. *Vulfila* O.H.G. *Wolfilo* cp. O.H.G. *Wolf-hart*, O.H.G. *Gundilo* cp. *Gund-hart*. Examples of diminutives without an *i* before the *l*-suffix: Goth. *magu-la* m. 'little boy' from *magu-s* m. 'boy', O.H.G. *morhala* f. 'moril, edible mushroom' from *moraha* f. 'carrot', O.H.G. *Bodulo Bodalo* by the side of *Bodilo*, O.Icel. *Sinfjotli* by the side of O.H.G. *Sintarfizzilo*.

The diminutival *l*-suffix was extended by other diminutival elements. O.H.G. *turilī* (*turilīn*) Mid.H.G. *türlīn* from *turila*, *chindilī* (*chindilīn*) 'little child'; for the origin of this extension see Kluge, *Stammbild*. p. 29. O.H.G. *jungal-ing* O.Icel. *ungl-ingr* 'a youth', O.Icel. *mýslingr* from *mýsla* 'little mouse', which itself is derived from *mūs* 'mouse'.

Balto-Slavonic. Lith. *gai-la-s* (and with changed declension *gai-lū-s*) 'ill-tempered, liable to bite (of dogs)' O.C.Sl. (*d*)*zē-lū* 'violent': O.H.G. *gei-l* 'ungovernable, petulant, wanton'. Lith. *mig-là myg-là* O.C.Sl. *mǣg-la* 'mist': Gr. Hom. *ὀμίγ-λη* 'mist'. Lith. *āk-la-s* 'blind': Lat. *aquilu-s*. O.C.Sl. *strē-la* f. 'arrow': O.H.G. *strā-la* f. 'arrow, flash of lightning'. O.C.Sl. *si-la* 'might, strength' Sloven. *si-la* 'haste', cp. Pruss. *sei-li-* 'earnestness, endeavour, diligence' *seiliska-* 'devotion': it is not clear whether we should compare Skr. *śī-la-m* 'custom, character' or Lett. *sī-t* 'to bind'. Lith. *aū-la-s* 'leg of a boot' beside *aū-ti* 'to cover the feet'. Lett. *ē-la* 'road', beside *i-t* 'to go', cp. Lith. *ei-l-ē* f. Lett. *ai-l-i-s* m. 'series, row'. O.C.Sl. *qz-lū vqz-lū* 'knot'.

-llo- may perhaps be traced in the following instances. Pruss. *sirs-il-i-s* O.C.Sl. *strīš-īlū* beside Lith. *szirsz-l-ỹ-s* 'hornet': Dutch *horzel*. Lith. *sprāg-ila-s* 'flail', beside *sprag-ėti* 'to rustle'. O.C.Sl. *koz-īlū* (*kozlū*) 'he-goat', from *koza* 'goat'. *orīlū* 'eagle', beside Lith. *erēl-i-s* O.H.G. *aro* m. 'eagle'. O.C.Sl. *sedlo* n. 'saddle' for **sedīlo* (are O.H.G. *satul* A.S. *sadol* 'saddle' borrowed from some Slavonic language?). *svētlū* 'luminous' for **svētīlū*, from *svētū* 'light'. In considering the last two words it should

be noted that pr. Slav. **sedlo*, **světlŭ* would necessarily have appeared in O.C.Sl. as **selo*, **svělŭ* (I § 545 p. 399, § 548 p. 402). Cp. also Pruss. names like *Butil* (*buta-* 'house'), *Cantil* (*canta-* 'endurance').

-s-lo- is not uncommon (cp. *-s-li-* § 98). O.C.Sl. *tesla veslo*, see p. 199 above. Pruss. *san-insl-e* f. 'girdle' O.C.Sl. *sŭ-vešlo* n. 'band, fetter' *u-vešlo* n. 'diadem' for **q̃gh+s-lo-*, *✓ aŋgh-* 'tie, press tight', cp. O.C.Sl. *qz-lŭ* 'knot'. Lith. *mók-sla-s* 'teaching', *krišla-s* Lett. *krišl-s* 'refuse, fragment' for **krit-sla-*; *měszla-s* Lett. *měsl-s*, both usually in pl., 'dung, sweepings' beside Lith. *mėž-iu* Lett. *mėschu* 'I cleanse out' (I § 414 p. 303); *gy-sla* 'vein, sinew', cp. O.C.Sl. *ži-la* 'vein'; *ŭsl-ŷ-s* 'one who scents out' *ŭsl-ě* 'nostril' for **ŭtsl-* beside *ŭ'džiu* 'I smell': *mŷ-sl-ě* 'riddle'. O.C.Sl. *čislo* 'number' for **čŭt-slo* (cp. *čisme* § 117), *prešlo* 'gradus' for **prentslo* from Slav. *prend-* or *prent-* (see Miklosich, Etym. Wörth. 262), *maslo* 'oil, salve' beside *maz-ati* 'to smear' (I loc. cit.).

-e-lo-. In Baltic this is preserved in *-e-l-ŷo-*, as Lith. *dīd-eli-s* 'great' (beside *dīdi-s* 'great' like Gr. *μεγάλο-* beside *μέγας*), *er-ēli-s* 'eagle' (cp. O.C.Sl. *orŭlŭ*); usually with diminutive meaning, as in Lith. *parszēli-s* 'little pig' *galvėlė* 'little head'. Cp. also Pruss. names like *Dargelo Dargels* (*darga-* 'dear'). In Slavonic the simple *-elo-* also occurs, though rarely: e. g. *dręselŭ* (beside *dręsŭkŭ*) 'sorrowful, peevish', *cvěteliŭ* 'flower', *plēvelŭ* 'weed' beside *plēva* Pruss. *pelwo* 'chaff'.

-o-lo-, *-a-lo-* or *-ə-lo-*. In Baltic *-ala-* is fairly common, as in Lith. *mižalaĩ* pl. Lett. *mīfals* 'urine', Lith. *ūž-vaikala-s* 'bed-cover' (cp. O.C.Sl. *oblěklo* 'clothing' for **ob-velk-lo*), *āvala-s* 'foot-covering' (cp. *aŭla-s* p. 210), *veikala-s* 'business', *snaigala* 'snowflake'. In Slavonic it is rarer; O.C.Sl. *sokolŭ* 'falcon'.

Remark 3. For the combinations *-o-lo-*, *-a-lo-*, *-ə-lo-* I can find no sufficiently certain parallels in the other languages to prove that they are genuine pre-Slavonic suffixes. In the case of *-o-lo-*, Gr. *μαυρόλης*; and the like must be disregarded; on the other hand Skr. *karmāra-* 'smith' *vācāla-* 'talkative' and Goth. *slahal-s* might be regarded as positive evidence. *-ə-lo-* appears in Skr. *ani-la-s* 'wind' (beside *āni-mi*).

Balt. *-ē-la- -ē-l-ja-*. This is derived from a verb in *-ē-ti* in Lith. *tekėla-s tekė-l-i-s* 'grindstone, running on an axle' (Lett. *tezzel-i-s*, usually fem. *tezzele*), from *tekėti* 'to run'; and is also found in the numerous *nomina agentis*, which often imply contempt, e. g. *paklydėli-s* 'rover, gad-about' from *klydėti* 'to wander about', *netikėli-s* 'ne'er-do-weel' (*tikti* 'to suit'), *padūkėli-s* 'raving madman' (*pa-dūkti* 'to go mad') *nudėgėli-s* 'one ruined by a fire' (*nu-dėges* 'burnt out'). Cp. O.C.Sl. part. *želē-lū* beside *želėti* 'to wish', *vidē-lū* beside *vidėti* 'to see'; see below. Examples of *-ē-l-ja-* as a secondary suffix are *kirmėlē* 'worm' from O.Lith. *kirmi-s*, gen. *kirmio* 'worm', *musėlē* 'fly' from *musē* 'fly'; further, diminutives formed from words of more than two syllables, like *avinėli-s* 'little ram' from *āvina-s* 'ram', *kepurėlē* 'little hat' from *kepurė* 'hat', *kirmėlėlē* 'little worm' from *kirmėlē*. The origin of this secondary *-ēl-ja-* is not clear.

-ī-lo-. Lith. *aký-la-s* 'observant' (beside *aký-ta-s* 'furnished with eyes' and *aky-va-s* 'furnished with eyes, inquisitive'), beside *aký-ti* 'to get eyes, become porous'. Cp. O.C.Sl. part. *chvali-lū* beside *chvali-ti* 'to praise'.

In Slavonic the suffix *-lo-*, which formed *nomina agentis*, was used very freely, and hence was developed the so-called part. praet. act. II; as *bi-lū* beside *bi-ti* 'to strike', with *jesmī* practically equivalent to a perfect, 'I have struck'. Other examples are *nes-lū* beside *nes-ti* 'to carry', *by-lū* beside *by-ti* 'to be' (cp. Gr. *q̄v-λo-ν*, *q̄v-λῆ*), *zna-lū* beside *zna-ti* 'to know', *dēla-lū* beside *dēla-ti* 'to do, make', *žēlē-lū* beside *žēlē-ti* 'to wish', *chvali-lū* beside *chvali-ti* 'to praise'. Cp. Lat. *legulu-s* 'one who picks (fruit)' O.H.G. *ezzal* 'ravenous' (O.C.Sl. *jalū* for **ēd-lū*), *tregil* 'bearer', Gr. *σῆγᾱλό-ς* 'silent', *μιμηλό-ς* 'imitative', Lith. *tekėla-s* ('runner') 'grindstone', *akýla-s* 'observant'.

Diminutives. Lith. *-e-l-i-s* and *-ē-l-i-s* have been mentioned; with *parszėli-s* compare Lat. *porculu-s* *porcil-ia* O.H.G. *farhel-i* n. 'sucking pig', with *ratėli-s*, Lat. *rotula*. *ragėli-s* 'little horn' may be directly connected with O.C.Sl. *rog-l-ī* Mod.Sloven. *rogelj* beside *rogū* 'horn', though in the Slavonic languages the diminutive sense is lost. The pet names, however, in Slavonic belong

to this class; e. g. Serv. *Božilo* beside *Božo Bogo-ljub*, *Bratilo* *Brajilo* beside *Brato Brato-ljub*; cp. Pruss. *Butil Dargelo* p. 211.

§ 77. The European suffixes *-dh-ro-* *-dh-rā-* and *-dh-lo-* *-dh-lā-*¹⁾.

In Greek, Italic, Slavonic, and perhaps also in Germanic, these suffixes are found beside *-tro-* *-tlo-* (§ 61) and *-ro-* *-lo-* (§ 74. 76) with similar meaning. They are used in substantives mainly to denote the means, or a tool, or a locality. They sprang from the coalescence of the so-called 'determinative' *dh* (Skr. *rā-dh-āmi*, Gr. *πλή-θ-ω*, Lat. *pū-b-ēs*, O.C.Sl. *i-d-a*, cp. § 8 Rem. 2 p. 20) with a following *-ro-* *-lo-*, and are therefore parallel to such combined forms as Gr. *-θ-μο-* (§ 72) and to *-s-lo-* (§ 76), and others. Cp. Gr. *ἄρ-θ-ρο-ν* 'joint, limb': *ἀρ-θ-μός-ς* 'joining, connexion'; *βα-θ-ρο-ν* 'step, threshold, seat, foundation': *βα-θ-μός-ς* 'step'; *σκ-ε-θ-ρός-ς* 'exact, precise, careful': *σχ-ε-θ-έμεν* 'to hold, have' (*σχ-ε-θ-* for the normal *σκ-ε-θ-* is due to association with *ἐ-σχ-ο-ν* and similar forms, cp. I § 496 p. 364 f.); *κῆλη-θ-ρο-ν* 'magic drug': *κηλη-θ-μός-ς* 'enchantment'; *κῆνη-θ-ρο-ν* 'winnowing fan': *κῆνη-θ-μός-ς* 'movement'; Lat. *sta-b-ulu-m*, Czech. *stá-dlo* Lower Sorb. *sta-dlo* 'herd, drove': Gr. *στα-θ-μός-ς* 'standing place', O.C.Sl. Pol. *sta-d-o* Czech *stádo* 'herd'; Lat. *fa-b-er*: Gr. *τε-θ-μός-ς* *θε-θ-μός-ς* 'statute' (for the initial *τ-* *θ-* cp. *σκεθρός-ς* *σεθέμεν*); Italian (Tusc.) *pevera* 'a wooden funnel' = Lat. **plē-b-ra* (beside Lat. **plē-tra* implied in Milanese *pīdria* 'wooden funnel' and other forms, cp. Lat. *palpe-bra* beside *palpe-tra*): Gr. *πλή-θ-ω* 'I am full'²⁾ and many similar examples. With the forms having *ε*, a Lat. *e* after the root syllable, as Gr. *σκ-ε-θ-ρός-ς*, *ἐδ-ε-θλο-ν*, *μέλ-α-θρο-ν*, *κρεμ-ά-θρα*, Lat. *illec-e-bra mand-i-bulu-m* *condūc-i-bili-s* should be compared (besides *σχ-ε-θ-έμεν* mentioned above) *γηθείω* for **γᾶf-ε-θείω* = Lat. *gaudeō* for **gāv-e-deō*, *φλεγ-ί-θω*, *νεμ-ί-θομαι*, *ἐργ-ά-θω*, *διωκ-ά-θω* etc.

1) Cp. Ascoli's essay cited in footnote 1 on p. 118; and Fr. Hanssen, *Die Aktivbedeutung der Adjectiva auf bilis im archaischen Latein*, *Philologus* N. F. I 274 ff.

2) Add here Gr. *πλήθρο-ν* 'είδος; μέτρον' in Hesychius, if the reading is right.

The great majority of the nouns that belong to this class are certainly later formations which arose independently in the course of the separate growth of the various families of language. Isolated examples may date from older times, cp. Lat. *sū-bula*, *in-sūbulu-m*, Czech *ští-dlo* Pol. *szy-dło* O.C.Sl. *ši-lo* 'punch, awl', common ground-form **sīū-dhlo-* *-dhla-*; Gr. Hom. *λύ-θρο-* 'contamination', Lat. *dē-lū-bru-m* *pol-lū-bru-m*, common ground-form **lā-dhro-*; Lat. *sta-bulu-m* (**stā-*), Czech *stá-dlo* (**stā-*).

In consequence of their equivalent functions and similar sound *-dhro-*, *-dhlo-* were in many cases confused with *-tro-*, *-tlo-*. On this point see § 62 p. 121 f. In Slavonic the older *t*-suffix was completely ousted by the *dh*-suffix; the substitution of the *dh* for *t* is especially clear in the word for 'plough' O.C.Sl. *ralo oralo* Czech. *rádlo* Pol. *radło*, where all the other languages, even Lithuanian, show *-tro-* *-tlo-*.

Remark. Some have wished to derive this suffix from *-thro-*, *-thlo-*. To this hypothesis, it must be confessed, no phonetic objections can be raised (I p. 407 footnote). But its only object is to re-establish the theory of the original identity of this suffix with *-tro-*, *-tlo-*, and I do not see how any probable ground can be given for assuming that the latter had split into double forms at so early a period. In other forms the aspirated tenuis appears for the tenuis in Aryan only (cp. I § 475 p. 350 f., § 553 p. 405 ff.), and hence we may at least demand evidence for the existence of an Aryan suffix *-thra-* = *-tra-*.

To the examples given above a few may be added from the separate groups of languages.

Greek. *ὄλε-θρο-ς* 'destruction', *λάλη-θρο-ς* 'talkative', *μύλω-θρό-ς* 'miller', *τέρ-θρο-ν* 'end, point', *πλ-ί-θρο-ν* *πέλ-ε-θρο-ν* 'acre, hide of land' (cp. *πτ-ε-ρό-ν*: Skr. *pat-a-rā-* p. 182), *ῥέ(φ)-θρο-ν* *ῥεῖθρο-ν* 'stream', *μέλπη-θρο-ν* 'delight', *κόρη-θρο-ν* 'besom', *ἐπι-βά-θρα* 'means of climbing, ladder', *κοιμή-θρα* 'sleeping-place', *ἀλινδῆ-θρα* 'place to roll in, place of exercise (for horses)' *ῥ-θλο-ς* 'cant, empty talk' (from *ῥεῖ* 'it rains'), *ἐσ-θλό-ς* 'excellent', *θέμε-θλο-ν* 'foundation', *γένε-θλο-ν* and *γενέ-θλη* 'descent, family, offspring'. Where *λ* precedes, the form *-θρο-* may sometimes have arisen from *-θλο-* by dissimilation, cp. I § 266 p. 215.

Italic. In proethnic Italic *-dhro-* *-dhlo-* became *-fro-*, *-flo-*. These remained in Umbro-Samnitic, while in Latin they passed into *-bro-*, *-blo-*. See I § 370 p. 281. For the anaptyxis in Lat. *-bulo-*, *-bili-* see I § 269 p. 218. Pr. Ital. **sta-flo-*: Lat. *sta-bulu-m* *sta-bili-s*, Umbr. *sta-flarem* 'stabularem' Pelign. *pri-stafalacirix* 'antistita for **-stafla-crīx* = Lat. **prae-stabula-trix*.

Lat. *crī-bru-m*, *flā-bru-m*, *ventilā-bru-m*. *dolā-bra*, *verte-bra*, *tere-bra* and *ē-lece-bra* ('enticer', fem.). *crē-ber* (from *crē-scō*), *candēlā-ber* (beside *candēlā-bru-m*), *Mulci-ber* (gen. *-berī*, a new formation instead of **-brī*); occasionally the forms have been transferred to the *i*-declension, as *anclā-bri-s*, *ale-bri-s* (beside *ali-bili-s*). *trī-bulu-m*, *pā-bulu-m*, *vocā-bulu-m*, *medicā-bulu-m*, *lati-bulu-m*, *mandi-bulu-m* and *mandi-bula*, *fā-bula*. Once or twice we find *-i-bulu-m* as a secondary suffix; for example *sessibulu-m* (*sessu-s* *sessili-s*), *tūribulum* (*tūs*). From this suffix are formed a large number of adjectives which have passed into the *i*-declension, as *sta-bili-s*, *nō-bili-s*, *mō-bili-s*, *flē-bili-s*, *dē-lē-bili-s*, *sānā-bili-s*, *ad-mīra-bili-s*, *sepeli-bili-s*, *vola-bili-s*, *intel-ligi-bili-s*, *in-vendi-bili-s*. In a few cases *-i-bili-s* is a secondary suffix; e. g. *odibili-s* (*odiu-m*), *illūtibili-s* (*il-lūtu-s*), *flexibili-s* (*flexu-s*), *persuāsibili-s* (*per-suāsu-m*).

Just as *-clo-* became *-cro-* by dissimilation in *lucru-m* (for **lu-clo-m*) and in other words (I § 269 p. 217), so it may sometimes have happened that after a preceding *l*, *-blo-*, *-bli-* became *-bro-*, *-bri-*.

Germanic. The proethnic Germanic forms *-dra-*, *-dla-*, e. g. in O.H.G. *hri-ttara* f. 'riddle, sieve', may represent Idg. *-tro-*, *-tlo-* quite as well as Idg. *-dhro-* *-dhlo-*; cp. § 62 p. 121. O.H.G. *hri-ttara* may be compared equally well with Lat. *crī-bru-m* 'sieve' (which contains Idg. *-dhro-*) or with O.Ir. *criathar* 'sieve' (Idg. *-tro-*). I know of no case where the *dh*-suffix could be identified with any degree of certainty.

Slavonic. O.C.Sl. *želo* 'point, sting' Pol. *żą-dło*. Czech *by-dlo* Upper Sorb. *by-dło* 'dwelling' Pol. *by-dło* 'cattle, property, means'. O.C.Sl. *črǫpalo* 'scoop' Pol. *czerpa-dło*. O.C.Sl. *klepalo*

'sounding-board (of an instrument), bell' Pol. *klepa-dlo*. O.C.Sl. *čědilo* 'strainer, filter' Pol. *cedzi-dlo*. O.C.Sl. *bělilo* 'means for whitening, white paint'.

§ 78. The Suffix *-bho-* *-bhā-*.

This suffix was confined to a small area, and it is only in Balto-Slavonic (and possibly Germanic) that it shows any degree of fertility. As a secondary suffix it was no doubt used even in the proethnic period of Indo-Germanic, to form names of animals. To judge from Sanskrit, in this usage it was generally or always accented.

Indo-Germanic. Skr. *ṛṣā-bhā-s* 'bull' points to an Idg. **ṛsq-bhó-s* (**ersq-bhó-s*) 'bull' beside Avest. *aršan-* 'male, man' Gr. *ῥσσην ἄρσην* 'male'), and we could at once accept the form as really proethnic, if the suggested connexion of Gr. *Εἰραφ-ιώτης* Lesb. *Ἐρραφειώτᾱς*, a title of Dionysus, with Skr. *ṛṣābhā-s* is correct. It does not seem to me, however, that Wackernagel (followed by Solmsen, see Kuhn's *Ztschr.* XXIX 126 ff. 352 ff.) has satisfactorily removed the difficulty of assuming an assimilation of *rs* to *ρρ* in proethnic Greek.

Aryan. Here the suffix is almost confined to names of animals. In Sanskrit besides *ṛṣā-bhā-s* we have with similar meaning *ṛṣā-bhā-s*, beside *ṛṣān-* 'male, man, bull'. *śarabhā-s* a fabulous creature with eight legs, enemy of the lion and elephant, suggests Gr. *κίραφος* 'fox', *κόραφος* a bird, in Hesych. (compare no doubt *κορώνη*, so that the bird must have belonged to the raven family), *κάλαφος ἀσκάλαφος* a kind of owl. *śērabha-* name of a snake. *rāsabha-s* 'ass' (the only Skr. form with the accent upon the root), from *ras-* 'shriek, roar, bray'.

sthūla-bhā- beside *sthūlā-* 'large, massive'.

Greek. *Εἰραφιώτης*, *κίραφος*, *κάλαφος ἀσκάλαφος*, see above. *ἐλαφος* 'stag' ground-form **elq-bho-s*, beside *ἐλλός* for **ἐλν-ος*, O.C.Sl. *jelen-* (gen. *jelen-e*) 'stag', Lith. *ėln-i-s* 'stag, elk' (cp. § 114). Thus *κόραφος* too (see above) no doubt stands for **kory-bho-*, cp. Lat. *corn-ix*. *κιδάφη ακιδάφη* 'fox'. *ἐριφος* 'kid', with which Stokes would connect O.Ir. *heirp erb* (pl. *herbind*) 'capra, damma'; this word however cannot have lost

a vowel beetwen *r* and *b* (*p*) (for the *p* cp. I § 524 p. 380). *κόσσυφο-ς* Att. *κότυφο-ς* 'thrush'.

κόλαφο-ς 'blow with the fist, box on the ear'. *κρόταφο-ς* 'temple' (of the forehead) beside *κρότος κροτέω*, (named from the pulsation?). Denomin. *ψηλαφάω* 'I grope'. *κέραφο-ς* *σκέραφο-ς* 'abuse, calumny'. *φλήναφο-ς* 'chattering', subst. 'chatter'. *ἔδαφος* n. 'base upon which a thing rests', no doubt transferred to the *es*-stems by assimilation to *ἔδος* n. *κόρυφή* 'peak', cp. *κόρυ-θ-* 'helmet' *κόρυ-δο-ς* 'tufted lark'. *ἄργυρο-ς* 'gleaming like silver'.

Other examples of this kind are given in Lobeck *Proleg.* p. 291 ff.

Italic. Perhaps we should class here Lat. *mor-bu-s*, beside *mor-ior*, cp. Lith. *dār-ba-s* and the like (see below).

Old Irish. Perhaps *heirp erb* 'capra, damma'; see above.

Germanic. From this suffix are no doubt derived the Gothic adverbs in *-ba*, as *ubilaba* 'badly, wickedly' *báitraba* 'bitterly', *agluba* 'hardly, scarcely', *ana-láugniba* 'secretly'.

Balto-Slavonic. Lith. *anksztý-ba-s* 'of an early kind, appearing early', beside *anksztì* adv. 'early', and, modelled on this word, *vėlyba-s* 'of a late kind' beside *velaĩ* adv. 'late'. Further, numerous abstract substantives in *-y-b-ė*, derived from adjectives, as *auksztýbė* 'height, highness' from *áukszta-s* 'high', *jaunýbė* 'youth' from *jáu-na-s* 'young', *bailýbė* 'timorousness' from *bailù-s* 'timorous', *kantrýbė* 'patience' from *kantrù-s* 'patient'; Lettish has preserved the older unextended *-ība*, as *augstība*, *jāunība*. Again we have primary *nomina actionis* in *-yba -ybė*, as *dalybos* pl. 'division of an inheritance' beside *dalyti*, 'to divide', *tikyba tikybė* 'faith' beside *tikėti* 'to believe'; cp. Lett. *tizība* 'faith', *māzība* 'teaching, instruction' (*māzīt* 'to teach'). Lastly there are a few substantives in which we have the suffix added immediately to the root: *dār-ba-s* 'work', hence *darbù-s* 'diligent' and *dīrbu* 'I work', beside *daryti* 'to do'; *gar-ba* (Szyrwid) and *garbē* 'honour', hence *garbù-s* 'honourable' and *gerbiù* 'I honour', beside *giriù* 'I praise'; similarly Lett. *schķir-ba* 'a split, rift', beside *schķir-t* (Lith. *skīr-ti*) 'to split, part, divide'.

In Slavonic the suffix appears in substantives in *-ba*. O.C.Sl. *qtro-ba* 'intestines, belly' beside *ję-tro* 'liver', see § 75 p. 189. 197 f. *zūlo-ba* 'wickedness' from *zūlū* 'wicked'. Serv. *ruġo-ba* 'disgraceful character' beside *rug* O.C.Sl. *raġū* 'disgrace', *grdo-ba* 'indecenty' beside O.C.Sl. *grīdū* 'proud, arrogant'. O.C.Sl. *tatī-ba* 'thievery, theft' from *t atī* 'thief', *gostī-ba* 'entertainment, cheer' from *gostī* 'guest'. Starting from forms like these *-ība* became an independent ending, e. g. *družība* 'companionship, friendship', from *drugū* 'companion, friend', *sūlība* 'embassy' from *sūlū* 'ambassador'. Cp. *tatī-stvo*, giving rise to *sūl-īstvo* § 61 p. 117. The use of *-ība* was extended by the fact that the form became associated with verbs in *-i-ti* (like *gosti-ti družī-ti*); after this connexion had been established, abstract substantives in *-ība* were made directly from these verbs (cp. Miklosisch, *Vergl. Gr.* II 213 ff.). A few nouns in *-ība* were formed from the participle in *-tū (-to-)*, as *ženit-ība* 'wooing, marriage, wedding' (also *ženit-īstvo*), *gostit-ība* 'hospitality', *orat-ība* 'tillage', *sēt-ība* 'sowing'; this group of forms arose during the time when the part. pass. was still formed with *-to-* in these verbs.

§ 79. The Suffix -to- -tā-

This suffix was both primary and secondary in the proethnic and later periods. We may classify its usage under four headings.

1. *-to- -tā-* as a primary suffix in participial adjectives and substantives connected with them¹⁾.

The suffix was used to form a participial noun immediately from the root, e. g. **klū-tó-* 'heard' from *kley-* 'hear'. This formation must have been very common in the Indo-Germanic period.

The root (in the strict sense, cp. § 8 Rem. 1 p. 20) might, generally speaking, be replaced by any element or combination of elements which acted as a verbal stem; hence forms like **nemā-to* 'vomited' Skr. *vami-ta-* Gr. *ἐμε-τό-ς* (ἐμε-το-ς) Lat.

1) Bordellé, *De linguae Latinae adjectivis suffixo to a nominibus derivatis*, Düsseldorf 1873. Birt, *De participiis Latinis quae dicuntur perfecti passivi*, Index lect. Marburg. 1883--84 (cp. with this treatise Osthoff, *Zur Gesch. d. Perf.* 550 ff.).

vomi-tu-s, or like **dorki-to-* 'brought to sight', Skr. *darśi-tā-* Goth. *ga-tarhi-þ-s*, partic. of **dorkeið*, causal of $\sqrt{\text{derk-}}$ 'see', and those developed in the separate languages like *ἀγανη-τό-ς* (*ἀγανάω*) Lat. *piscā-tu-s* (*piscārī*) Goth. *fiskō-þ-s* (*fiskō-n*).

The addition of *-to-* to thematic present stems was no doubt a later process, even though it may have begun in the proethnic period; cp. e. g. Skr. *darś-a-tā-s* 'visible, worth seeing' Gr. *ἐρπ-ε-τό-ν* 'creeping thing', Gall. *nem-e-to-n* O.Ir. *nemed* n. 'sanctuary' (properly 'what is revered'). Cp. *-eti-* § 100. *-o-to-* also may be a proethnic form: Gr. *βίο-το-ς* *βιο-τή* 'life, livelihood', O.Ir. *biad* n. 'livelihood', Lith. *gyva-tà* 'life, livelihood' O.C.Sl. *živo-tū* 'life, living thing'.

The meaning of these participial forms was generally passive, and with the exception of the last group (*darśa-tā-s* etc.), that of a perfect participle passive. But the passive sense can hardly have been originally attached to the suffix itself. Numerous forms occur with an active-intransitive sense which dates from the earliest period, such as **bhū-tó-* 'become, grown', **stā-tó-* 'having a position, standing', **sru-tó-* 'having a flow, flowing'. The idea of completion or being complete, and hence of being in a particular condition seems to have been the essential element in the meaning of the forms derived from the verbal stem. Hence we have also active *to*-participles from active verbs, such as O.H.G. *wīs* 'skilful, wise' Gr. *ἄ-ιστο-ς* 'unskilful', Gr. *τλητό-ς* 'enduring' *ὑπ-οντο-ς* 'entertaining suspicion', Lat. *cōn-siderātu-s* 'considerate, thoughtful' *cēnātu-s* 'who has dined' (cp. Mod.H.G. *ein gelernter schlosser* 'a trained locksmith' lit. 'who has learnt', *ein erfahrener mann* 'an experienced man', *ein ehrvergessener mensch* 'a dishonourable fellow', lit. 'one who has forgotten honour' etc.¹)

1) It need hardly be assumed that this sense was first introduced into the participles when they were compounded with other words and the meaning of the compound was epithetised (*mutatum*, § 50); e. g. Gr. *ἄ-ιστο-ς* 'being without anything known, without knowledge', Lat. *in-cōnsiderātu-s* 'being without anything considered, without consideration'; and that it was only on the model of this group of words that the signification was extended to some of the participles when uncompounded.

At the same time, I do not suppose that the use of the *to*-participles is original in Latin deponents, where they share all the constructions of the present *nt*- participle and the finite verb, e. g. *omnia cōfessus* like *omnia cōfitēns* and *omnia cōfiteor*. This usage arose only after compound tenses like *cōfessus sum* had become part of the system of the finite verb.

The idea of completion and of being brought to an end is often replaced by one of capacity or possibility, as in Gr. *λυ-ρό-ς* 'capable of being freed'. This change of meaning is no doubt proethnic in Idg. **morto-s* 'mortal' (Skr. *mārta-* Gr. *βροτό-ς*). But we find that in the separate languages this usage is seldom or never found except in participles compounded with the privative particle, or in some other form of negative expression. Compare, for examples of the first kind, Skr. *á-marta-s* *a-mṛta-s* Gr. *ἄμβροτο-ς* 'immortal', Skr. *a-túrta-s* 'unsurpassable', *á-jṛta-s* 'unfading', *á-dabdhā-s* 'inviolable, infallible', *á-parīta-s* 'unconquerable', Gr. *ἄλυτο-ς* 'indissoluble', *ἄμεμπτο-ς* 'blameless', *ἀν-έκπληκτο-ς* 'not to be confounded, or terrified', Lat. *in-victu-s* 'invincible' *in-fectu-s* 'not to be done, impossible', *in-numerātu-s* 'innumerable', Goth. *un-saht-s* 'incontestable', *un-atgāht-s* 'unapproachable', cp. also O.Ir. *dī-brithe* 'importabilis'; and of the second, *οὐκ ἀνεκτό-ς* 'not to be borne', *οὐκ ὀνομαστό-ς* 'not to be named' in Homer. Hence we may infer that this meaning first arose in negative expressions. It spread most widely in Greek; further examples are *ροητό-ς* 'comprehensible', *θαυμαστό-ς* 'wonderful', *βατό-ς* 'passable, practicable (of roads)'.

In every language we meet with a number of forms in *-to*- which stand in no actual connexion with any verbal system, and are therefore simply adjectives, as Skr. *śī-tā-* 'cold', Lat. *al-tu-s* 'high', Goth. *raiht-s* 'right'. Some of these may date from a period of the proethnic language in which the adjectives formed with *-to-* had not yet been associated with the verb, and thus may never have been participles at all.

Even in the Indo-Germanic period these *to*-formations were often used as substantives, partly to denote living beings (masc.,

fem.) and concrete material things (neut.), partly as abstract substantives (§ 158). In the latter usage this suffix, like *-o-*, is often found in the masculine. The feminine *-tā-*, forming abstract substantives, had even then become secondary. This point will be further discussed in the next section.

The *to*-stems formed immediately from the root usually have the weak grade of ablaut in the root-syllable, e. g. **klu-tó-* **klū-tó-*. Beside this, however, we often find the forms of the strong grade, especially in substantival uses. With this is generally united a difference of accent. Cp. e. g. **klēy-to-m* 'hearing' beside **klū-tó-s* 'heard', *mór-to-s* 'mortal' beside **mṛ-tó-s* 'dead'¹). Here too it is not clear how the different grades were originally distributed. Compare the relations of the different grades in *ti*-stems, § 99.

Remark 1. Analogy often gave rise to mixed forms. For example, Germ. **múr-ḡa-n* n. 'murder' beside Skr. *mṛ-tó-m* has the accent of **mér-to-* or **mór-to-* (Skr. *már-ta-*), Germ. **zúl-ḡa-n* n. 'gold' that of **ghél-to-* (Lett. *fe'l-t-s*) or **ghól-to-* (O.C.Sl. *zlato*), and *vice versa*, Gr. *μορ-τό-ς* (Hesych., — if the word is rightly accented) beside Skr. *már-ta-s* has the accent of *mṛ-tó-* (Skr. *mṛ-tá-s*); Gr. *βερό-ς* is a confusion of **βερό-ς* (= **mṛ-tó-s*) and **μóre-το-ς*. There are many other instances.

So far as I can see, we are not warranted in referring forms like Gr. *μορτό-ς* *φόρτο-ς*, O.H.G. *hal-d* = pr. Germ. **χál-ḡa-z*, O.C.Sl. *zlato* = pr. Slav. **zol-to*, to ground-forms with *ī*, *ī̆* (**mṛ-to-s* etc.), though it would be phonetically possible (see I § 306 p. 241 ff.). Cp. Gr. *κοι-το-ς* *κοι-τη* beside *κει-ται*, *οι-το-ς* beside *ει-μι*, *νόσ-το-ς* beside *νόσσομαι*, *βρον-τή* beside *βρέμω* Lith. *bras-tà* beside *brėdù*, and so forth.

Where participles of this kind have strong-grade vocalism, we can hardly help suspecting in many cases that it is due to the analogy of other forms of the verbal system; e. g. Gr. *δείκ-τό-ς* beside *δείξα* etc. contrasted with Skr. *diṣ-tá-s* (from *√deikh-*).

Indo-Germanic. **klū-tó-* 'heard, famous', *√klēy-*: Skr. *śrutá-s* (Avest. *srūta-*), Gr. *κλυτό-ς*, Lat. *in-clutu-s*, O.Ir. *cloth* (O.Bret. *clot* 'glory'; perhaps f.), O.H.G. *Hlot-hari* Lothair (**Kλυτόστρατος* would have the same meaning) *hlūt* ('loud');

1) The use of strong-grade forms as substantives no doubt indicates that originally the Noun had but one set of forms for both its adjectival and its substantival meaning. Isolation from the adjective in use brought with it isolation in form. Cp. § 158.

**klēu-to-m* 'hearing': Avest. *srao-te-m*, Goth. *hliu-þ*, and no doubt Mod.Slov. *slu-t* 'suspicion' Serv. *slu-ta* 'who surmises'.
 **sru-tó* 'flowing', √ *sreū-*: Skr. *sru-tá-s*, Gr. *ῥυ-ρό-ς*; Skr. *sru-tá-m* 'a flowing, flood' Lith. *sru-tà* f. 'filthy liquid'; Lith. *srau-ta-s* 'stream, torrent', compare Skr. *srótas-* n. 'stream', extended by *-es-*. **ūs-tó-* 'burnt', √ *eys-*: Skr. *uṣ-ṭá-s*, Lat. *ūs-tu-s*. **i-tó-* 'gone', √ *ei-*: Skr. *atīta-* from *ati+ita-* 'disappeared, fled away', Gr. *ἀμαξ-ιρό-ς* f. (scil. *ódó-ς*) 'road passable for waggons', Lat. *i-tu-m* (*est*), *ad-itu-s*; Skr. *ē-ta-s* 'hastening', Gr. *ol-to-ς* 'fate'.
 **qi-tó-*, √ *qei-* 'pile, range, count, pay': Skr. *citá-s* 'arranged, piled' Gr. *τι-ρό-ς* 'requited' (in Homer also with *ι*, *ἄ-τι-ρο-ς*); Skr. *ci-tā* 'layer' O.C.Sl. *čī-tū* 'number' *po-čītū* 'enumeration'. **uīt-tó-*, √ *ueid-* 'see, observe, know': Skr. *vittá-s* 'found, perceived, known' (Avest. *vīsta-* 'found'), Gr. *ἄ-ιστο-ς* 'unknown, unskilful', O.Ir. *ro fess* 'scitum est', Goth. *un-vis* (stem *un-vissa-*) 'uncertain'; Lat. *vīsu-s*, Goth. *un-veis* 'unwise, unskilful' O.H.G. *wīs* 'wise' for Idg. **uīt-to-* or **ueit-to-* (O.C.Sl. *věstū* 'known, clear' is for **uoīt-to-*); and also O.H.G. *wisa* f. 'way, kind'. **mṛ-tó-* **mor-tó-*, √ *mer-* 'die': Skr. *mṛ-tá-* 'having died, dead' *a-mṛta-* 'immortal' *már-ta-* 'mortal, man', Armen. *mar-d* 'man' (= **mṛ-tó-*, see I § 291 p. 232 f.), Gr. *μορ-ρό-ς* *βοο-ρό-ς* 'mortal, man' *ἄ-μφορο-ς* 'immortal', Lat. *Mor-ta* goddess of death, one of the Parcae; Skr. *mṛtá-m* 'death' O.H.G. *mord* n. 'murder': cp. Rem. 1 p. 221.
 **stṛ-tó-* **stř-tó-* 'spread out, stretched out': Skr. *stṛ-tá-* Avest. *star-ta-*, Gr. *σπα-ρό-ς*, Lat. *stra-tu-s*, O.C.Sl. *-strě-tū*; Gr. *σπα-ρό-ς* 'camp, host'. **uṛ-tó-* 'versus', √ *uert-*: Skr. *vyttá-s*, Lat. *vorsu-s* *versu-s*; Skr. *vyttá-m* n. O.C.Sl. *vr̥sta* f. 'condition, state, position, stage', Lith. *var̥sta-s* 'a furrow-length'. **mḷk-tó-* 'milked', √ *melg-*: Lat. *mulc-tu-s*, Lith. *mīlsz-ta-s*: Mid.Ir. *mlicht blicht* m. 'milk'. **gm-tó-*, √ *gem-* 'go': Skr. *ga-tá-* 'gone, gone out, come' *á-gata-s* 'untrodden', Gr. *βα-ρό-ς* 'trodden, passable', *ἄ-βαρο-ς* 'untrodden, impassable' *δύσ-βαρο-ς* 'hard to pass over', Lat. *circum-ventu-s*, and no doubt Lith. *pri-gimta-s* 'inborn' (cp. I § 249 p. 204). **mṇ-tó-* 'thought, meant', √ *men-*: Skr. *ma-tá-*, Lat. *com-mentu-s*, Goth. *mun-d-s*, Lith. *miñ-ta-s* O.C.Sl. *mę-tū*; Skr. *ma-tá-m* 'meaning, opinion, purpose' Gr. *αἰ-ρό-ματο-ς* 'of one's

own design, willingly', Lat. *com-mentu-m* 'idea, invention, plan', O.Ir. *der-met* n. 'forgetting'. **ḡy-tó-* **ḡy̌-tó-* 'begotten, born', √ *ḡen-*: Skr. *jā-tá-* 'born, son', Lat. *gnā-tu-s nā-tu-s* 'born, son', Gall. *Cintu-gnātu-s* ('first-born'), Goth. *qina-kund-s* 'born of woman' O.Sax. *god-cund* 'born of God, divine' O.Icel. *kun-d-r* 'son'; Skr. *jā-tā-m* 'birth, origin, race'; O.H.G. *kin-d* n. 'child', ground-form **ḡén-to-m*. **kys-tó-*, √ *kens-* 'to mention, praise' (Gr. *κόμο-ς* indicates that this belongs to the *e*-series of ablaut; see Solmsen, Kuhn's Ztschr. XXIX 123. 329): Skr. *śas-tá-* 'spoken, praised', Osc. *an-censto* nom. sing. fem. 'incensa' *censtom-en* 'in censum' (Lat. *cēnsu-s* instead of **censtu-s*, Rem. 2 p. 231). **set'tó-* 'seated', √ *sed-*: Skr. *sattá-*, Lat. *ob-sessu-s*; Avest. *pasu-šasta-* m. 'cow-pen' A.S. O.Icel. *sess* m. 'seat', Lat. *sub-sessa* 'ambuscade'. **peq-tó-s* 'cooked', √ *peq-*: Skr. *pak-tá-* Gr. *πεν-ρό-ς* Lat. *coctu-s* for **cȳec-to-s* (I § 172, 3 p. 152, § 431 a p. 319 f.). **dhā-tó-* **dhē-to-* 'set, placed, laid', √ *dhē-*: Skr. *-dhitá-* *hi-tá-*, Gr. *θε-ρό-ς*, Lat. *crēditu-s* for **crēdato-s* (cp. Skr. *śrād-dhita-m* neut. 'trusted, believed'), Lith. *dē-ta-s* 'laid'. **dā-tó-*, *-*tto-* (i. e. *-*d+to-*) and **dō-to-* 'given', √ *dō-*: Skr. *vy-a-dita-s* 'separated, opened', *dēvā-tta-* 'god-given' Gr. *δο-ρό-ς*, Lat. *da-tu-s*; Skr. *tvā-dāta-* 'given by thee' Avest. *dā-ta-* 'given', Lith. *dū-ta-s* 'given'. Skr. *ā-kūta-m* 'intention', Lat. *cau-tu-s*, beside Skr. *ā-kuvatē* 'he intends' *kav-i-š* 'seer, sage', Lat. *cav-eō*. Skr. *ap-tā-* 'reached, attained, adapted, fit', Lat. *ap-tu-s ad-eptu-s*, beside Skr. *ap-nō-ti* 'he reaches' Lat. *apīscor*. **sjū-tó-* 'sewn', beside Skr. *siv-yā-mi* 'I sew': Skr. *syū-tā-* Gr. *νιο-χάρτῦρο-ς* ('newly soled'), Lat. *sū-tu-s*, Lith. *siū-ta-s* O.C.Sl. *ši-tŭ*; Skr. *syū-ta-s* 'sack' Mid.H.G. *siu-t sū-t* m. 'seam'. **uē-to-* **uē-tā-* 'blowing, wind': Skr. *vā-ta-s*, Gr. *ἀή-ρη* f. *ἀή-ρη-ς* m., Lith. denomin. *vė-tau* 'I winnow, fan'. **plē-tó-* 'filled', *plē-* 'fill': Skr. *prā-tā-* Lat. *im-plētu-s*. **ḡnō-tó-* 'known, recognised', *ḡnō-* 'know': Skr. *jñā-tā-*, Gr. *γνω-ρό-ς*, Lat. *nō-tu-s*, O.Ir. *gnā-th* ('known, accused'), Skr. *ā-jñāta-* Gr. *ἄ-γνωρο-ς* Lat. *īgnōtu-s*.

**uema-tó-* 'vomited', beside Skr. *vāmi-mi* Gr. *ἐμέ-ω* 'vomit': Skr. *vami-ta-* Gr. *ἐμε-ρό-ς* Lat. *vomi-tu-s*; Gr. *ἐμε-τ-ος* 'vomiting' (subst.). **ḡena-to-* 'begotten', √ *ḡen-*: Lat. *geni-tu-s*; Gr.

γενι-τή 'birth, origin', made masculine γενέ-της 'begetter, offspring' (cp. under Greek p. 229). With respect to the vowel-gradation of the stem these forms stand on a level with such others as Gr. φεφ-τός, while such forms as Gr. κμη-τός (beside κάμα-τος) no doubt correspond to the Skr. *bhṛ-tā-*.

Causative and Denominative formations: **dorki-tó-* from **dorkéjō* 'I bring to sight, show', √*derk-* 'see': Skr. *darśi-tā-* 'shown' (*darśáyāmi*), Goth. *ga-tarhi-p-s* 'blameworthy, notorious' (*ga-tarhja* 'I point out, blame'). **uosi-tó-*, from **uoséjō* 'to make put on, clothe', √*ues* 'put on something': Skr. *vāsi-tā-* 'clothed' (*vasáyāmi*), Goth. *vasi-p-s* 'clothed' (*vasja*). **moni-tó-*, from **monéjō*, √*men-* 'think, intend': Skr. *mānitā-* 'honoured' (*mānáyāmi*), Lat. *moni-tu-s* 'made aware, reminded, taught' (*moneō*); Skr. *mānita-m* 'a showing honour to'. The character of the formations in the several languages is so different, that it is somewhat doubtful whether *to*-participles were formed from true denominatives in Indo-Germanic; cp. e. g. Skr. *mantri-ta-* 'advised, discussed' (*mantráyāmi*, *mántra-s*), Gr. δωρη-τός 'presented with, given' (*δωρέω*, *δῶρο-ν*).

In the separate languages these participles served as the model for a number of adjectives in *-to-* derived immediately from substantives or adjectives, and meaning 'furnished with, made into' and the like; e. g. Skr. *anṅkuritā-* 'with young shoots' from *anṅkura-* 'young shoot', *aruṇitā-* 'reddened' from *aruṇi-* 'red', Gr. θυσανωτός 'tasselled' from θύσανο-ς 'tassel', Lat. *cordatu-s* from *cor* (*cord-*), *ātrātu-s* from *āter*, Goth. *un-qēniþ-s* 'unmarried', from *qēn-s* 'woman', Lith. *kalnītā-s* 'mountainous' from *kálna-s* 'mountain', *bradatū* 'bearded' from *brada* 'beard'.

In Aryan, Greek and Italic *-to-* is used also as a secondary suffix, and added immediately to the noun-stem, just as if this were a verb-stem. In Aryan this only occurs in compounds, so that here *-to-* has the same function as *-jō-* in adjectival compounds (see § 63 p. 126); e. g. Skr. *án-ap-ta-* 'not watery' from *ap-* 'water' Avest. *hu-patar'-ta-* 'well-winged' from a form **patara-* 'wing' (§ 74 p. 182); cp. Lat. *auro-clāvatu-s*,

Eng. *hare-hearted*, *lily-livered*, and the like (see under Germ. p. 234). Similarly Gr. *ἀ-γέρας-το-ς* 'unhonoured by gifts, unrewarded' from *γέρας* 'gift of honour', *ἀ-χείμαν-το-ς* 'without storms, without cold' from *χειμα χειμών* 'storm, winter's cold'; but along with these we have *γελασ-τό-ς* from *γελάω*, a denom. verb from **γελας-* 'laugh' (Solmsen, Kuhn's Ztschr. XXIX 109), *ἀκεσ-τό-ς* from *ἀκίωμα*, denom. from *ἄκος* n. 'remedy', and the like. Lat. *liber-tu-s* (Falisc. *lofer-ta* 'liberta'), from Lat. *liber*, *sceles-tu-s* from *scelus* *-er-is*. We may conjecture that the participial *-to-* was added immediately to noun-stems in the class of Indo-Germanic substantives in *-m̥-to-* and *-m̥-to-*, which will be discussed separately in § 82 p. 249. This group of words undoubtedly belongs to the proethnic period.

Examples of *-e-to-* *-o-to-* are given above, p. 219, and under the separate languages below.

Aryan. Skr. *cyu-tā-* Avest. *šū-ta-* 'driven, shaken': Gr. *ἐπί-συντο-ς* 'pressing forward', ground-form **q̥iu-tó-*. Skr. *hu-tā-hā-tā-* Avest. *zū-ta-* 'called upon, invoked': Goth. *gu-þ* n. 'God' pr. Germ. **zu-đā-n* n. 'a being that is called upon'. Skr. *stu-tā-* Avest. *stu-ta-* 'praised, lauded'; Skr. *stutā-* n. 'praise' Avest. *stuta-* m. 'praise, prayer'. Skr. *ūdā-* 'carried', for pr. Ar. **uđhā-* i. e. **uğh + to-*, Lat. *vec-tu-s*, Lith. *vėsztā-s* 'carried' ✓ *ueğh-*. Skr. *drugdhā-m* 'insult' Avest. *druxta-* O.Pers. *dūrūxta-* 'betrayed, deceived' (cp. I § 482 Rem. 1 p. 356), ✓ *dhreugh-*. Skr. *-i-ta-* Avest. O.Pers. *i-ta-* 'gone': Gr. *ἀμαξ-ιό-ς* etc., see p. 222. Skr. *si-tā-* 'bound' Avest. *hi-ta-* 'bound, seamed'. Skr. *pri-tā-* 'beloved, dear, glad' Avest. *fri-ta-* 'beloved, kindly': A.S. *frī-d* O.Icel. *frī-ð-r* 'lovely, beautiful'. Skr. *piś-tā-* 'adorned, equipped' O.Pers. *ni-piś-ta-* 'written': Lat. *pīc-tu-s*, ✓ *peīk-*. Skr. (pr. Ar.) *kṛ-tā-* Avest. *ker'-ta-* O.Pers. *kar-ta-* 'made', ✓ *qer-*. Skr. *dybdhā-* 'fastened, wound' Avest. *der'wōdā-* 'a twist, braid', ✓ *derbh-*. Skr. *śūr-tā-* 'destroyed', Avest. *a-sar'-ta-* 'unhurt', ground-form **k̥r-tó-*. Skr. *ha-tā-* Avest. O.Pers. *ja-ta-* 'smitten, slain' (cp. I § 454 Rem. p. 335): Gr. *φα-τό-ς* 'killed', common ground-form **gh̥t-tó-*, A.S. *zūð* f. 'battle' pr. Germ. **zūn-þō*, ✓ *ghen-*. Skr. *bhaddā-* Avest. O.Pers. *basta-* 'bound' (cp. I § 482

Rem. 1 p. 356), ground-form **bhṛdh* + *to-*, √ *bhendh-*. Skr. *spaṣ-ta-* 'visible, clear' Avest. *avi-spašta-* 'watched for, beset by foes': Lat. *ad-spectu-s*, common ground-form **spek-tó-*, √ *spek-*. Skr. *śiṣ-tā-* 'instructed, commanded', Avest. *sās-ta-* 'made known', beside Skr. *śās-ti-* 'he instructs, commands'. Skr. *di-tā-* 'bound': Gr. *σίν-δετο-ς* 'bound together', √ *dē-*. Skr. *sthi-tā-* Avest. *stā-ta-* 'standing': Gr. *στα-τό-ς* Lat. *sta-tu-s* 'standing' *prae-statu-s* beside *prae-stitu-s*, Goth. pret. *stō-þ* 'I stood' (developed from the partic.), O.C.Sl. *sq-po-statŭ* 'adversarius, foe', √ *stā-*. Skr. Avest. O.Pers. *pā-ta-* 'secured, defended'. Skr. *śrā-tā-* 'cooked' Gr. *ἄ-κῆτο-ς* 'unmixed'. Avest. **rōta-* n. 'determination, command' for **vrā-ta-* (I § 157 p. 141): Gr. *φῆν-τό-ς* 'determined'.

In Sanskrit the use of *-to-* was restricted by that of the parallel suffix *-no-*, which had a similar meaning; see § 66, 1 p. 139 ff.

Skr. *-i-ta-* = *-to-* occurs not only in *vami-ta-* (p. 223) but also e. g. in *vani-ta-* 'loved' (aor. *vani-ṣiṣ-ta-*), *dhami-tā-* 'kindled' (fut. *dhami-ṣya-ti*), *cari-tā-m* 'course' (inf. *cāri-tum*).

-i-ta- in Causatives and Denominatives. Skr. *vēditā-* 'informed', beside *vēdāyati* 'gives to understand, informs'. Avest. *raoiḍita-* 'great', from *rud-* 'grow'. Formed directly from the noun: Skr. *aṅkuṣita-* 'stung' from *aṅkuṣā-* 'sting, hook', *kārṇa-kitā-* 'having side-branches' from *kārṇaka-s* 'side-branch', *kar-būrita-* 'speckled' from *karburā-* 'speckled', Avest. *masita-* 'great' from *mas-ah-* *mas-an-* n. 'size' (the connexion of *āsita-* 'quick' with *as-u-* 'quick' is uncertain); perhaps also Skr. *hārīta-* Avest. *zairita-* 'yellowish' Skr. *palitā-* 'gray' *rōhita-* *lōhita-* 'red' and so forth. Like Skr. *án-ap-ta-* (see above p. 224) we have also *á-manyu-ta-* 'harbouring no enmity', from *manyú-ṣ* 'enmity'.

Idg. *-e-to-*. Skr. *darś-a-tā-* Avest. *dar's-a-ta-* 'worth seeing', √ *derk-* 'see'. Skr. *yaj-a-tā-* Avest. *yaz-a-ta-* 'worthy of honour', √ *iaḡ-* 'honour'. Skr. *pac-a-tā-* 'cooked', √ *peq-* 'cook'. *har-ya-tā-* 'wished for, desired', beside *hár-ya-ti* 'he desires, takes pleasure in a thing'. Cp. Skr. *drś-a-ti-ṣ* and the like, § 100.

Many *-to-* participles have quite the character of adjectives. A few examples may be given. Skr. *dyādhā-* 'firm' (Lat. *forti-s forti-s*, transferred to the *i*-decl., √ *dhergh-*), *śyē-tā-* 'white', *śī-tā-* 'cold', *sūr-ta-* 'clear', *tṛṣ-tā-* 'rough', *tig-itā-* 'sharp', redupl. *vā-vā-ta-* 'dear'. Avest. *sar^o-ta-* 'cold, cool': Lith. *szāl-ta-s* 'cold'.

Further examples of the substantival value in these forms are: Skr. *dū-tā-* Avest. *dū-ta-* m. 'messenger' (one gone into the distance); Skr. *su-tā-s* 'soma-juice' (that which has been pressed out): Skr. *ghāta-s* 'blow, killing'; Skr. *gār-ta-s* 'high chair'; Avest. *ka-ta-* m. 'grave': Skr. *khā-tā-m* 'grave'. Skr. *bhā-tā-m* 'food, nourishment' (that which has been allotted); Skr. *ghṛ-tā-m* 'fat'; Skr. *ṛ-tā-m* 'right'; Skr. *ās-ta-m* 'home'; Skr. *jīvi-tā-m* 'life'; Skr. *vr-a-tā-m* 'will'; Avest. *taš-te-m* 'the implements of sacrifice'; Avest. *fra-dāte-m* 'help, prosperity'. Skr. *sī-tā* 'furrow': O.H.G. *sī-ta* O.Icel. *sī-ḍa* f. 'side' ('bounding line, boundary'); Skr. *ak-tā* 'night' (*añj-* 'anoint, adorn'); Avest. *cistā* 'wisdom': Skr. *cittā-m* 'thought, spirit'; Avest. *dī-tā-* 'look': Skr. *dhī-tā-m* 'thought'.

Armenian. *mar-d* 'man' ground-form **mṛ-tó-*: Skr. *mṛ-tā-* etc., see above p. 222. *has-t* 'firm': O.Sax. *fas-t* 'firm', root-form Idg. *pas-* or *pās-*. A doubtful form is *dr-and* 'door-post, threshold': Skr. *ā-tā* 'setting, framework of a door' Lat. *an-ta* 'four-cornered door-pillar, pilaster' (cp. I § 253 p. 206 f.).

In extended formations: *ard-ar* 'upright': Skr. *ṛ-tā-* 'right, properly made'. *erd-nu-m* 'I swear': Oset. *ar-d ar-t* 'oath', O.C.Sl. *ro-ta* f. 'oath'.

Greek. Here the *to-* participles were less closely connected with the other forms of the verbal system than in Aryan, Italic and elsewhere. They were restricted to the attributive use.

λυ-ρός 'that can be loosed' *βον-λῦρός* 'time when the oxen are unyoked': Lat. *so-lū-tu-s*, O.Icel. *lū-ḍ-r* 'crushed to powder, exhausted'. *ἄ-γνωτος* 'unknown, ignorant': Skr. *buddhā-* 'awakened, enlightened, made acquainted, known', √ *bheydh-*. *ζευκ-ρός* 'yoked, put to': Skr. *yuk-tā-* 'yoked', Lat. *jūnc-tu-s*

(with *n* from *jungo*), O.H.G. *gi-joht* 'yoked'. *τυκ-τό-ς* 'prepared' *νεό-τευκτο-ς* 'newly prepared'. *φνκ-τό-ς* *φενκ-τό-ς* 'that can be escaped'. *φθι-τό-ς* 'disappeared, dead': Skr. *kṣi-tā-* 'exhausted, decayed'. *πιστό-ς* 'trustworthy, true, trustful, trusting' *εὖ-πειστο-ς* 'easy to persuade': Lat. *fīsu-s*, *√ bheṣdh-*. *δρα-τό-ς* *δαρ-τό-ς* 'skinned, flayed': Avest. *der^e-ta-* 'cut, mown', Lith. *nu-dirta-s* 'skinned'. *φερ-τό-ς* 'bearable, φόρ-το-ς 'burden': Skr. *bhṛ-tā-s* 'carried, sustained, hired', O.Ir. *ed-bart ed-part* f. 'oblatio'. *κλασ-τό-ς* 'shattered' (*κλαδ-*, aor. Hom. *κλάσσαι*): Lat. *per-culsu-s*, common ground-form **kḷt^o-*, i. e. **kḷd + to-*. *τα-τό-ς* 'ductile': Skr. *ta-tā-s* 'stretched, extended', Lat. *ten-tu-s*, common ground-form **tṛ-tó-s*, *√ ten-*. *ἀν-εκτό-ς* 'tolerable': Skr. *sādhā-* 'overcome' for pr. Ar. **sādhā-* (I § 404, 2 p. 299), *√ segh-*. *ζεσ-τό-ς* 'boiled': Skr. *prā-yasta-s* 'boiling over', *√ jes-*. *σεπ-τό-ς* 'before which one recedes, honoured with reverence, holy': Skr. *tyak-tā-* 'forsaken'. *ἄν-ετο-ς* 'loosened, let go': Lat. *sa-tu-s*, O.C.Sl. *na-sētū* 'sown', *√ sē-* 'throw, cast, sow'. *ἄ-ατο-ς* 'insatiable': Goth. *sa-þ-s* 'sated', Lith. *so-ta-s* 'repletion', *√ sã-*. *ἔμ-πληκτο-ς* 'struck, amazed' *πλήκ-τη-ς* 'striker': Lat. *planc-tu-s* with the nasal of the present (*plangō*) inserted, Lith. *plāk-ta-s* 'struck with the rod', *√ plaq-plāq-*. **πακ-το-* in *πακτώω* 'I make fast' *πηκ-τό-ς* 'fast joined' *πηκ-τή* 'net fixed in its place': Lat. *pac-tu-s*, (*com-pectu-s*) and *pac-tu-s* (? Osthoff, Zur Gesch. d. Perf. 178 f.), *√ pāk-pāq-*. *ἐπ-ακτό-ς* 'brought in': Lat. *āc-tu-s*, Gall. *amb-actu-s* orig. 'he who is sent about, messenger' (cp. O.Ir. *imm-agim* 'I drive about'), *√ aq-*. *ἐύ-ννητο-ς* 'well spun, woven': Lat. *nē-tu-s*, common ground-form **snē-to-s*. *βλη-τό-ς* 'thrown, struck', cp. Skr. part. *glā-na-* 'exhausted, ill', Idg. *glē-*. *πλω-τό-ς* 'swimming, navigating, navigable', cp. Goth. *flō-du-s* 'flood' (suffix *-tu-*).

ἀ-δάμα-το-ς 'unsubdued' beside *δμη-τό-ς* 'subdued': Skr. *dam-i-tā-* 'tamed'. *κάμα-το-ς* 'toil' beside *πολύ-κμητο-ς* 'wrought with toil'. *θάνα-το-ς* 'death' *ἀ-θάνατο-ς* 'immortal' beside *θνη-τό-ς* 'mortal'. *ἀ-δάμα-το-ς*: *δμη-τό-ς* = *φερ-τό-ς*: Skr. *bhṛ-tā-s*, see p. 224 above.

ἀγαπη-τό-ς Dor. *ἀγαπα-τό-ς* 'beloved' from *ἀγαπάω*. *κοσμη-τό-ς* 'set in order' *κοσμή-τη-ς* 'orderer' from *κοσμέω*. *χολω-τό-ς*

'enraged' from *χολώω*. *μηνί-της* 'wrathful man' from *μηνίω*. *ἀρτυ-τό-ς* 'prepared, seasoned' (of meats) from *ἀρτύω*. *πορευ-τό-ς* 'wandering' from *πορεύω*. *ἄκεσ-τό-ς* 'curable' from *ἀκέομαι* for **ἄκεσ-χο-μαι*. *ἔμερ-τό-ς* 'longed after, lovely' from *ἔμειρω*. *ὑφαν-τό-ς* 'woven' *ὑφάν-της* 'weaver' from *ὑφαίνω*. *ληϊστό-ς* 'captured' from *ληΐζομαι*. *ὀνομαστό-ς* 'that can be named' from *ὀνομάζω*. Examples of words formed directly from nouns are: *κοντωτό-ς* 'furnished with punting poles' (*κοντό-ς*) *καρνωτό-ς* 'shaped like a nut (*κάρνο-ν*)'; words like these gave the type from which *σαλπιγγωτό-ς* 'shaped like a trumpet' (*σάλπιγγ-*) and others of the same kind were formed; further, *ἄ-γέραστο-ς* 'without gifts of honour' (*γέρας*), *ἀτρίβαστο-ς* 'not worn, unharmed' (beside *ἀτριβής*), and other words.

Idg. *-e-to-* (cp. *-e-ti-* § 100). *ἔλε-τό-ς* 'that can be grasped'. *εὔρε-τό-ς* 'to be found', *εἰρε-τή-ς* 'inventor'. Denominative forms: *ναε-τάω* 'dwell', *ἀρι-δείκετο-ς* 'worth seeing, remarkable'. *δακε-τό-ν* 'biting creature'. Cp. also *ἀν-ήνυτο-ς* 'that cannot be completed' beside *ἀ-νύ-ω* (Skr. *sa-nḍ-mi*), *πινυ-τό-ς* 'wise' for **πν-νυ-το-* I § 48 p. 41 (cp. Skr. *pu-nd-mi* 'I purify, clear up'); these words therefore contain the *-νεμ- -nu-* which is used in forming the present stem. With *-o-to-*: *βίο-το-ς* *βιο-τή* 'life, livelihood': O.Ir. *biad* etc., see above, p. 219.

Further examples of substantives formed with this suffix are: *νόσ-το-ς* 'return home': Skr. *ás-ta-m* Avest. *as-te-m* 'home' for **us-to-m* (Bartholomae, Kuhn's Ztschr. XXIX 483), O.H.G. *nes-t* n. 'provision for the way, support'. *βλασ-τό-ς* *βλάσ-τη* 'bud, shoot', *κοῖ-το-ς* *κοί-τη* 'couch', *ἄμη-το-ς* 'mowing, harvest', *ἄω-το-ς* 'wool, flock (of wool)', *ἀλαλη-τό-ς* 'battle-cry', *κωκῦ-τό-ς* 'wail', *ἔμε-το-ς* 'vomiting', *ῥε-τό-ς* 'rain'. *φυ-τό-ν* 'growth', *σπάρ-το-ν* *σπάρ-τη* 'rope', *πο-τό-ν* 'drink'. *κίσ-τη* 'chest, box', *εἰρκή* *ἐρκτή* 'cage, prison', *βρον-τή* 'thunder', *ἐν-ετή* 'brooch', *ἄκ-τή* 'rugged coast', *ἀή-τη* 'blast, wind', *ἄῤ-τή* 'shout', *τελευ-τή* 'ending', *ἀρε-τή* 'virtue', *γαμε-τή* 'wife', *πινυ-τή* 'understanding'. Abstract *tā-* stems were employed to denote persons of the masculine gender (§ 149. 157); hence came the large class of masculines in *-τᾱ-ς*, like *γενέ-της* act. 'begetter', pass. 'he that is begotten' beside *γενε-τή* 'origin, birth',

and *κρι-τή-ς* 'judge', *δέκ-τη-ς* 'receiver', *προ-φητή-ς* 'interpreter of oracles, soothsayer', *ποιη-τή-ς* 'maker, poet', *ἐδνω-τή-ς* 'bride's father', *ἐκ-τή-ς* 'suppliant'; cp. § 80 p. 239 f.

Italic. In this group of languages the *to-* participles filled a larger and more important place than in any other.

Lat. *i-tu-m i-tāre*, Umbr. *etato* 'itate': Skr. *-i-ta-* etc., see p. 222 above. Lat. *scrip-tu-s*, Umbr. *screihtor* pl. 'scripti' Osc. *scriptas* pl. 'scriptae'. Lat. *fisu-s*, cp. Umbr. *Fisiu Fissiu* (a derivative in *-iō-*) abl. 'Fisio': Gr. *πιστό-ς*, *✓bheĩdh-*. Lat. *mulsu-s* part., *molta multa* 'punishment', Umb. *motar* gen. 'multae', Osc. *moltam* 'multam' pr. Ital. **molk-tā-*: Skr. *mṛṣ-tā-* part. of *mṛṣdmi* 'I take hold of, touch'. Lat. *or-tu-s*, Umbr. *ortom* 'ortum' ground-form **r-to-*: Gr. *νέ(φ)-ορο-ς* 'newly arisen' *κονι-ορό-ς* 'raising of dust, cloud of dust', ground-form **r-tō-*, cp. Skr. *īr-ṇa-*. Lat. *censu-s*, Osc. *an-censto* fem. 'incensa': Skr. *śas-tā-*, see p. 223 above. Lat. *ēm-p-tus*, Umbr. *emps* 'emptus' *da-etom* 'demptum', for the *p* see I § 207 p. 174. Lith. *isz-iñta-s* 'taken out'. Lat. *ūsu-s*, Pelign. *oisa* abl. 'usa, consumpta', beside the pres. Lat. *oetor ūtor*. Lat. *sanc-tu-s*, Umbr. *sahta sahatam* 'sanctam', Osc. *saah-tum* 'sanctum'. Lat. *sta-tu-s prae-stātu-s*, Umbr. *Prestotar* (*o = a*, see I § 105 p. 98) gen. 'Praestatae' Osc. *statúm* 'statum, statutum' *Staatiiis* 'Statius': Skr. *sthi-tú-* Avest. *stā-ta-* etc., see p. 226 above. Lat. *piñ-tu-s*, Umbr. *pihaz pihos* 'piatus'. Lat. *lēgā-tu-s*, Osc. *līgatúis* 'legatis'. Lat. *finī-tu-s*; Umbr. *stati-ta* pl. 'statuta'; Osc. *καπιτωμ* i. e. *kapid-t-to-m* 'ollarium' (beside Lat. *capis -idis*). Lat. *geni-tu-s*, Osc. *Genetai* 'Generatrici': Gr. *γενε-τή* 'origin, birth'. Lat. *taci-tu-s*, Umbr. *tašez* 'tacitus' *tasetur* pl. 'taciti'.

Lat. *ex-ūtu-s*: Lith. *isz-aũta-s* 'stripped' *aũ-ta-s* 'rags for the feet'. *ci-tu-s* Skr. *śi-tā-s* 'excited, put in motion'. *in-certu-s*: Gr. *ἄκριτο-ς* 'undistinguished' (cp. I § 33 p. 33 f.). *re-lictu-s*: Skr. *rik-tā-s rik-ta-s* 'cleared, empty', Gr. *ἀ-διά-λειπτο-ς* 'uninterrupted', Lith. *pri-likta-s* 'allowed by fate, allotted'. *tortu-s* for **torc-tu-s*: Gr. *τρέπ-τό-ς* 'that can be turned, moved round'. *pulsu-s* from *pellō*. *tinctu-s*: Gr. *τεγχ-τό-ς* 'wetted, softened'. *lēc-tu-s*: Gr. *λεχ-τό-ς* 'collected, that can be spoken'. *ēsu-s*: O.H.G.

ās n. 'food for animals', Lith. *su-ėsta-s* 'eaten up' O.C.Sl. *jas-to* 'food', ✓ *ed-*. *ca-tu-s*: Skr. *śi-tā-s* 'whetted, sharpened'. *unctu-s*: Skr. *ak-ta-s* 'anointed'. *scissu-s* Gr. *σχιστό-ς* 'split'. *quē-tu-s*: Avest. *šata-* 'happy' i. e. **šyāta-* for **cyā-ta-* (cp. *šāiti-* = O.Pers. *šiyati-* and I § 448 p. 333). *frē-tu-s*, *con-flātu-s*.

Remark 2. The ending *-so-s*, which had a regular phonetic origin in *scissu-s* *visu-s* *ēsu-s* *morsu-s* *per-culsu-s* and similar forms, spread beyond its proper sphere, e. g. *lapsu-s*, *fixu-s*, *sparsu-s*, *mulsu-s* (beside *multu-s*), *cēnsu-s*, *hausu-s* (beside *haustu-s*). This was furthered by the analogy of the *s*-perfect. The parallelism of *con-cussu-s*: *con-cussi*, *laesu-s*: *laesi*, *sēnsu-s*: *sēnsi* gave rise to *fixu-s* beside *fixi*, *sparsu-s* beside *sparsi*, etc. On the analogy of *pendō*: *pēnsu-s*, we find *in-tēnsu-s* formed beside *ten-tu-s* (pres. *tendō*), cp. p. 161 footnote 2. Conversely we have *com-ēstu-s* instead of *com-ēsu-s* on the analogy of *haus-tu-s* *ges-tu-s*.

In Latin the terminations *-a-to-* *-i-to-* *-e-to-* became indistinguishable. *moli-tu-s* (*molere*), *ali-tu-s* beside *al-tu-s* (*alere*), *pī(n)si-tu-s* beside *pī(n)su-s* (*pīnsere*), O.Lat. *ad-gretu-s* for **-gred(i)-to-s* (I § 501 Rem. 2 p. 368) beside *ad-gressu-s* (*ad-gredi*); *moni-tu-s* (*monēre*); *habi-tu-s* (*habēre*); *domi-tu-s* (*domāre*), *veti-tu-s* beside *vetā-tu-s* (*vetāre*), *im-plitu-s* beside *im-plitātu-s* (*im-plicāre*). Cp. the abstract nouns in *-itiō* § 100.

privā-tu-sa mā-tu-s etc. *olētū-m* 'ordure', *monē-ta*. *vestī-tu-s*, *finī-tu-s* etc. *statū-tu-s*, *tribū-tu-s* etc. Participles were formed directly from nouns more frequently in Italic than in the other groups of languages: *ānsā-tu-s* from *ānsa*, *barbā-tu-s* from *barba*, *ātrā-tu-s* from *āter*, *aurī-tu-s* from *auri-s*, *cīnclū-tu-s* from *cīnctu-s* (gen. *cīnctūs*) and, by a further transference of ending, e. g. *gradu-tu-s* from *gradu-s* (gen. *gradūs*), *arcuātū-s* from *arcu-s* (gen. *arcūs*), *dentātu-s* from *dēns* (gen. *dent-is*), *galērū-tu-s* from *galēru-s*, *patrītū-s* from *pater*, *nāsūtū-s* from *nāsu-s*. An isolated example has *-ōtu-s*: *aegrōtu-s* from *aeger* (stem *aegro-*). *-to-* is also added immediately to the stem as a secondary suffix; e. g. *liber-tu-s* Falisc. *loferta* 'liberta', *jūs-tu-s*, *sceles-tu-s*, Umbr. *mersto* 'iustum' = **mers-(e)s-to-* **med-(e)s-to-* from *mei-s* *mers* 'ius', Lat. *onus-tu-s*, *vetus-tu-s*, *ūber-tu-s*, *senec-tu-s*; often to denote places which contain anything, as *arbus-tu-m*, *cārec-tu-m*, *virgul-tu-m*. Hence come also the

adjectives in *-ōnsu-s* *-ōsu-s*, as *formō(n)su-s vīrōsu-s*, for *-ouēnsso-* i. e. *-o-ūpt + to-* (see I § 238 p. 199 f., § 501 p. 368, II § 127): cp. Avest. *ašavasta-* 'pure, upright' (n. 'purity, uprightness' from *aša-vant-* 'possessed of purity, pure, upright').

Adjectives. Lat. *sanctu-s* Umbr. *sahta* Osc. *saahtúm*, see p. 230 above. Lat. *citu-s*, *catu-s*, *curtus*, *stlatu-s* *latu-s* 'outspread, wide' (for **stl̥-to-*, cp. O.C.Sl. *stelja* 'sterno'), *ex-celsu-s*, *pēnsu-s*, *at-tentu-s*, *altu-s*, *beātu-s* *argātu-s*, and other examples.

Substantives. Lat. *lēgātu-s* Osc. *ligatúis* 'legatis'; Lat. *hortu-s* Osc. *húrtúm*: Gr. *χόρ-το-ς* 'grass, place for grazing, courtyard', O.Ir. *gor-t* 'seges' *lub-gort* 'vegetable garden' (cp. I § 389 p. 291); Lat. *lectu-s* *lectu-m* 'lying-place', *lutu-s* *lutu-m*, *cubitu-s*, *palātu-s* *palātu-m*. Lat. *dictu-m*, *jussu-m*, *strātu-m*, *tēctu-m*, *in-cestu-m*, *olētu-m*. Lat. *multa* Umb. *motar* Osc. *moltam*, see p. 230 above, Lat. *Vesta*, *of-fēnsa*, *im-pēnsa*, *re-pulsa*, *sub-sessa*, *secta*, *fossa*; Umbr. *totam* 'civitatem'. Osc. *toivto* *τωιτρο* 'civitas' pr. Ital. **toyūtā-*: O.Ir. *tuath* f. 'people', Goth. *þiuda* 'people', ground-form **toyūtā-*, $\sqrt{\text{tey-}}$ 'tumere'.

Old Irish. The participial *-to-* still survives as a verbal suffix, in the preterite passive, a periphrastic formation which is only found in the 3. sing. and 3 pl. (the verb substantive has been dropped). *ro alt* 'educatus est' (*alim* 'educo'): Lat. *al-tu-s*. *ro chēt* 'cantus est' (*canim* 'cano'): Lat. *can-tu-s*. *do-breth* Mid.Ir. 'datum est' (*do-biur* 'I bring, give'): Skr. *bhṛ-tā-* etc. *ro fess* 'scitum est': Skr. *vittā-* etc. *ro both* 'one was': Gr. *φύ-τό-ν* 'growth' Lith. *bū-ta-s* 'dwelling, house' Skr. *bhū-tā-* 'become'. *ro chloss* 'auditum est', $\sqrt{\text{kley-s-}}$. *ro erbaid* 'commissum, creditum est' beside pres. 3. sing. *erbaid* 'credit'. This group of forms no doubt sprang from the impersonal use of the neuter.

In some words the old participial form has a purely adjectival value. *necht* 'pure': Skr. *nik-tā-* 'washed', Gr. *ἄ-νιπτο-ς* 'unwashed'. *cloth* 'famed': Skr. *śru-tā-* etc., see p. 221 *nocht* 'naked': Goth. *nuqaþ-s*. *gnāth* 'known, accustomed': Skr. *jñā-tā-* etc., see p. 221. Generally the participles which were used as adjectives were not also used as the pret. pass., cp. *cloth* beside *ro chloss*.

The participial meaning still survives in *-the*, an extension of the suffix by *-iō-* (cp. Gr. ἀμβροσίω-ς: ἄμβροτο-ς, Skr. *mārtiya-*: *mārta-*, O.H.G. *wīsi* 'wise' Mid.H.G. *sīhte* 'shallow'). *brithē brethe* 'brought': Skr. *bhṛ-tā-*. *cēte* 'cantus'. *er-ite* 'susceptus' beside 3. sing. pres. conj. *-air-ema* 'suscipiat': Lat. *ēm-p-tu-s*. *tuicse* 'electus' beside *to-gu* 'choice', from *-gus-t-iō-*: Skr. *juṣ-tā- jūṣ-ta-* 'beloved, desired', Gr. γενο-τό-ς 'tasted, to be tasted', A.S. *ge-cost* 'valuable' ✓ *geys-*. Sometimes the idea of capacity, possibility is implied, as in *rithe* 'vendible' (also 'sold, given up') beside *re-nim* 'I give up, sell', *dī-brithē* 'importabilis'. There is certainly a connexion between the use of *-the*-forms as participles, and the conversion of the predicative *-to*-participle into a preterite passive. Preference was given to the existing *-tīō-*-forms in order to make a distinction in form answering to the distinction in sense; and then new *-tīō-*-forms were made at will and used as participles. The same thing happened in Cymric; only the suffix employed there for the participles was not *-t-iō-*, but *-(e)tic* which came from *-t-īco-* (Zeuss-Ebel, Gr. C. p. 532).

On the other hand, we have the simple *-to-* *-tā-* in partic. used as substantives. *gor-t* m. *seges*: Gr. χορ-το-ς, see p. 232 above. *mlicht blicht* m. (Mid.Ir.) 'milk': Lat. *mulcto-* etc., see above p. 222. *der-met* n. 'a forgetting': Skr. *ma-tā-m*, see p. 222 above. *nemed* (Gall. *neme-to-n*) n. 'sacred thing' ('something honoured'), ✓ *nem-*. *dliged* n. 'law'. *biad* n. 'means of livelihood': Gr. βίω-το-ς βίω-τή 'life, livelihood' etc., see p. 219 above. *both* f. 'dwelling-place, hut'; cp. above *ro both*. *loth* f. 'filth': Lat. *lu-tu-s lu-tu-m*. *breth* f. 'judgement, sentence'. *im-thecht* f. 'going round, change'. *ed-bart ed-part* f. 'oblatio'.

Cp. Gall. *amb-actu-s* 'bondman, servant' orig. 'one sent about, messenger' (see p. 228), *Celtu-s Crestu-s Ate-gnatu-s Ate-gnata*, *Γαισάροι* pl. ('pilati'), *Sematu-s Cirata*, and many similar forms.

Germanic. *-to-* was a living participial suffix in derivative verbs (Causative and Denominative), e. g. Goth. *nasip-s* O.H.G. *gi-nerit* 'saved' from *nasjan nerien* 'to save'; Goth. *ga-tarhiþ-s* 'blame-worthy, notorious' from *ga-tarhjan* 'to mark out, blame': Skr. *darśitā-* 'shown'; *ṭhārsiþ-s* 'thirsty' from *ṭhārsēþ mik* 'I am

thirsty', lit. 'it thirsts me': Skr. *trṣitā-* 'thirsty'; Goth. *salbōþ-s* O.H.G. *gi-salbōt* 'anointed' from *salbōn* 'to anoint'; Goth. *habáiþ-s* O.H.G. *gi-habēt* 'had' from *haban habēn* 'to have'. Further in Gothic, we have such partec. attached to the preterite-presents, e. g. *mund-s* 'meant, thought' beside *man* 'I think, mean': Skr. *matā-* etc., *skuld-s* 'owed' beside *skal* 'I ought, *maht-s* 'able, possible', beside *mag* 'I can'. Lastly they occur in certain strong verbs which have preterites in *-ta*, e. g. Goth. *vaúrht-s* O.H.G. *gi-worht -woraht* beside Goth. *vaúrkjan* O.H.G. *wurchen* 'work': Avest. *varšta-* 'worked, done' Gr. ἄρρηκτο-ς 'undone' ✓ *uer-g-*, Goth. **þúht-s* O.H.G. *gi-daht* (pr. Germ. **þuræχ-ta-*, I § 214 p. 181) beside *þugkjan dunken* 'to seem', Goth. **braht-s* O.H.G. *braht* (pr. Germ. **bræwχ-ta-*) beside *briggan bringan* 'to bring'. In all other cases *-eno-* *-ono-* was the participial suffix in use (§ 67 p. 149 ff.), and in O.H.G. it appears also in preterite-presents (*gi-wizzan* from *weiz* 'I know', *gi-torran* from *gi-tar* 'I dare', and occasionally in the strong verbs with *t*-preterites (*brungan*, side by side with *braht*).

The suffix also formed participles directly from nouns. Goth. *un-gēniþ-s* 'not having a wife', from *gēn-s* 'woman'. O.H.G. *gestirnōt* 'having a brow or front' from *gistirni gestirne* n. 'brow', Mid.H.G. *ge-jāret* 'aged' lit. 'be-yearred'. O.Icel. *hærd-r* 'covered with hair'. In the developement of Anglo-Saxon and Norse there appears a special group of adjectival compounds derived in this way, e. g. Engl. *hare-hearted*, *hare-lipped*, *bare-footed*, *bare-headed*, O.Icel. *bjart-litad-r* 'bright-coloured', *sex-hofðad-r* 'six-headed', *gull-bitlad-r* 'with golden bridle': cp. Skr. *án-aptā-* 'not watery' Lat. *auro-clāvātu-s* p. 224.

Idg. *-e-to-* is no doubt to be traced in O.H.G. *hulid* n. 'velamentum', *egida* f. 'harrow' (: Mod.Cymr. *oged* O.Corn. *ocet* 'harrow') and other words. *-o-to-* in Goth. *naqap-s* beside O.Icel. *nekkved-r nekkvið-r* O.Ir. *nocht* 'naked' (cp. Skr. *nag-na-* with the participial suffix *-no-*), Goth. *liuhaþ* n., side by side with O.H.G. *lioht* n. 'light'.

It is common in adjectives. Further examples are: Goth. *vun-d-s* O.H.G. *wunt* 'wounded': Gr. *Fato-* in *Φατάλαι*. οὐλαί

(Hesych.). Goth. *bi-ūht-s* 'accustomed': Lith. *j-ūnkta-s* 'accustomed' (cp. Osthoff, Paul-Br. Beitr. VIII 269). O.H.G. *zorah-t* O.Sax. *torht toroht* 'clear, bright': Skr. *dṛṣṭā-s* 'seen', common ground-form **dṛk-tó-*. Goth. *faúrh-t-s* O.Sax. *forht* 'timid'. O.H.G. *zar-t* 'dear, fine, beautiful' beside Skr. *ā-dṛta-s* 'considerate, treated with consideration, honoured'? Goth. *kał-d-s* O.H.G. *kalt* 'cold': cp. Lat. *gelu*, O.C.Sl. *gol-olǝ* 'ice'¹). Goth. *raih-t-s* O.H.G. *reht* 'right': O.Pers. *rāsta* 'upright, just' (for **rāsta-* 'on the analogy of forms with *raz-*'), Gr. *ὀρεκτός* 'extended, outstretched', Lat. *rēctus*, ground-form **rēk-to-*, *✓reġ-*. Goth. *bairh-t-s* O.H.G. *beraht* 'bright'. O.H.G. *lioh-t* 'beaming'. Goth. *dáu-þ-s* O.H.G. *tō-t* 'dead', from O.H.G. *touwen* 'to die'. Goth. *haf-t-s* O.H.G. *haft* 'captured, fettered': Lat. *cap-tu-s*.

Substantives. Goth. *mō-þ-s* (stem *mō-da-*) 'anger' O.H.G. *muot* m. 'spirit, mind, courage', beside O.C.Sl. *sū-mě-ti* 'to dare'. A.S. *ðroh-t* m. 'work' O.Icel. *þrōtt-r* 'strength', cp. O.H.G. *drucchen* 'to press'. O.H.G. *haf-t* m. n. A.S. *haeft* m. O.Icel. *hapt* n. 'bond, fetter', cp. Goth. *haft-s* 'captus'. O.H.G. O.Sax. *fros-t* A.S. *forst* m. O.Icel. *frost* n. 'frost', beside O.H.G. *friosan* 'to freeze'. O.H.G. *gi-waht* m. 'mention, fame', beside *gi-wuog* 'he made mention of': Skr. *uk-tā-* 'spoken', *✓ueq-*. O.H.G. *mor-d* n. O.Icel. *morð* n. 'murder, killing': Skr. *mṛ-tā-m-* 'death'. Goth. *gul-þ* O.H.G. *gold* n. 'gold': Lett. *se'l-t-s* O.C.Sl. *zla-to* 'gold', *✓ghel-* 'to shine with a yellow gleam'. O.H.G. *pro-d* n. O.Icel. *broð* n. 'broth': Lat. *dē-fru-tum -frūtu-m*. Goth. *þiu-þ* O.Icel. *þjóð* n. 'good' (subst.). Goth. *hliu-þ* 'listening to, attention, silence' O.Icel. *hljóð* n. 'hearing, sound': Avest. *srao-te-m*, see p. 221 f. O.H.G. *ferid* n. 'navigium' *zimbrid* n. 'building'. Goth. *skanda* O.H.G. *scanta* f. 'shame' beside the adj. O.H.G. *scan-t* 'ashamed' (cp. O.H.G. *scama* 'shame'). O.H.G. *wun-ta* 'wound', beside *wunt* 'wounded', *scar-ta* 'notch, wound', beside *scart* 'injured, mutilated', *forah-ta* 'fear', beside Goth. *faúrh-t-s*

1) Do the last two words, *zart* and *kalt*, come from Idg. **dṛ-to-* **qł-to-* or **dor-to-* **gol-to-*? There is the same doubt as to O.H.G. *scar-t* 'injured, mutilated'.

'fearful, timid'. Goth. *ras-ta* 'a length of road' O.H.G. *rasta* 'rest, repose, a length of road'. O.H.G. *slah-ta* 'killing, slaughter'. A.S. *zūd* f. 'battle' pr. Germ. **zūn-pō*: Skr. *ha-tā* 'slain'. Goth. *us-fartō* f. (n-decl.) 'a going out' (*usfarþōn gatáujan us skipa* i. e. 'to suffer shipwreck'). Goth. *þiu-da* O.H.G. *diota* 'people': Osc. *tocto* etc., see p. 232 above.

Balto-Slavonic.

In Lithuanian the *to*-participle is still in regular use with a passive sense in verbs of all classes. *gīr-ta-s* 'famed': Skr. *gūr-ta-s* 'approved, welcome, pleasant', ground-form **gr-to-* and **gr-to-*. *pīl-ta-s* 'poured, shed': Skr. *pūr-tā* 'filled', ground-form **pl-to-* and **pl-to-*. *kiřsta-s* 'hewn' (pres. *kert-ù*): Skr. *kṛtta-s* 'cut off, split', ground-form **qrt-tó-*, √ *qert-*. *sūk-ta-s* 'turned' (pres. *suk-ù*). *at-sēkta-s* 'traced out, found out': Lat. *sec-ta sectārī*. *dē-ta-s* 'laid' (pres. *dedù*): Skr. *-dhi-ta-* etc., see p. 223 above. *jěszkó-ta-s* 'sought' (pres. *jěszkau*). *pa-veizdēta-s* 'examined, revised' (pres. *pa-vėizdmi*). *táiky-ta-s* ('properly united' (pres. *táikau*). *áuksin-ta-s* 'gilded' (pres. *áuksinu*). *balnū-ta-s* 'saddled' (pres. *balnū'ju*). Also act.-intrans., but only rarely, as *bū-ta* neutr. 'been', e. g. *czion yrà būtu* 'people have been here' ¹): Skr. *bhū-tā* 'become': *važiū-ta-s* 'riding (in a carriage)' (pres. *važiū'ju* 'I ride').

Partcc. in *-ē-ta-s* and *-ū-ta-s* are often formed directly from nouns. *dūlkēta-s* 'dusty' from *dūlkės* pl. 'dust'. *skylēta-s* 'perforated' from *skylė* 'hole'. *kalnū-ta-s* 'mauntainous, full of mountains' from *kālna-s* 'mountain', *gaurū-ta-s* 'with delicate hair' from *gaurai* pl. 'delicate hair'. *qsū-ta-s* 'with a handle' from *qsà* 'handle', *lūpūta-s* 'lipped' from *lūpa* 'lip'.

In Old Church Slavonic *-to-* was but little used as a participial suffix. It occurs regularly in forms from roots ending in a nasal, e. g. *žę-tū* 'hewn, mown': Lith. *giñ-ta-s* 'hunted, driven' (used of cattle), Skr. *há-ta-s* etc., see p. 225 above; *pę-tū* 'stretched, hung': Lith. *pìn-ta-s* 'twisted'; *ję-tū* 'taken':

1) *Jis rādo svētimo būta* 'he found that there was a stranger' properly 'the existing of a stranger', with the same nominal construction as the passive participles have.

Lith. *iñ-ta-s* 'taken'. Besides these, it occurs in certain roots with *rĭ*, *i*, *ē* before the suffix, e. g. *pro-strītū* 'outstretched': Skr. *stṛ-tā-s* etc., see p. 222 above; *vi-tū* 'wounded': Lith. *vỹ-ta-s* 'twisted' (of cords); *pě-tū* 'sung'. Elsewhere -eno- (-no-) was the usual form, see § 67 p. 151 and p. 154 f.

Partec. in -a-tū, from nouns, are common. *bradatū* 'bearded' from *brada* 'beard': Lat. *barbatu-s*, cp. also Lith. *barzdūta-s*. *rogatū* 'horned' from *rogū* 'horn': cp. Lith. *ragūta-s*. *ženatū* 'having a wife' from *žena* 'woman'. *mažata* 'maritata' from *mažē* 'man'.

-e-to- -o-to- in Balto-Slavonic. The former is sometimes found in Slavonic, as O.C.Sl. *trep-etū* 'tremor' Little-Russ. *trep-eta* 'aspen'; O.C.Sl. *kreč-etū* 'cicala'. -o-to-: Lith. *gyvatà* 'life, livelihood'. O.C.Sl. *životū* 'life, living being': Gr. *βίo-το-ς* etc., see p. 219 above; Lett. *luppata-s* 'patch, shred' (*lup-t* Lith. *lūp-ti* 'to pare, flay'); Lith. *sūkata* 'giddy sickness (of sheep)' *sūk-ti* 'to turn'), *adatà* Lett. *addata* 'needle' (Lith. *ad-ýti* 'to stitch'); O.C.Sl. *klokoťū* 'bubbling' (subst.), *klopotū* 'noise' Pol. *kłopot* 'unrest', Czech *blekot* 'yelping' (subst.) (O.C.Sl. *blekotati* 'to bleat' Russ. *blekotat'* 'to stammer'), *dusot* 'roar', *sikot* 'hiss', *lakota* 'eager desire'.

In Adjectives it is common. Lith. *spīsta-s* 'pressed, thick' (beside *spintū* *spīsti* 'to fly out in swarms', of bees): Lat. *spissu-s*. Lith. *skýs-ta-s* 'with a thin stream', dialectically also 'pure, clear' of liquids, *skáis-ta-s* 'clear, shining', O.C.Sl. *čis-tū* 'pure, holy', beside Lith. *skėdžiu* 'I part, separate, rarefy'. Lith. *geļ-ta-s* O.C.Sl. *žlū-tū* (pr. slav. **gĭl-tū*) 'yellowish'. Lith. *szál-ta-s* 'cold': Avest. *sar-ta-* 'cold'. *tvīr-ta-s* 'firm'. *driū-ta-s* 'firm, lasting', cp. no doubt O.H.G. *trū-t* 'beloved, dear' and *trūēn* 'to trust, believe'. *plk-ta-s* 'angry'. *bál-ta-s* 'white'. *rúksz-ta-s* 'sour'. *kársz-ta-s* 'hot'. *duksz-ta-s* 'high'. O.C.Sl. *tlūs-tū* 'fat'. *žestū* *žestokū* 'hard', no doubt orig. 'burnt', for **gek-s-to-* beside *žegā* 'I burn' (cp. I § 545 p. 400). *is-tū* 'certain, true'. *lju-tū* 'violent, grim, terrible'. *čės-tū* 'thick': Lith. part. *kiñsz-ta-s* 'stuffed', (*kemszū* 'I stuff'). *otū-vrīstū* 'opened, open' (*otū-vrīzā* 'I let loose, open'). *u-vėš-tū* 'wreathed, crowned' (*u-vėzā* 'I wreath, crown').

In substantives. Lith. *piřsz-ta-s* O.C.Sl. *prīs-tū* 'finger' ground-form **přk-to-s*, cp. no doubt Skr. *sprś-tā-s* 'touched'. Pruss. *gei-t-s* acc. *gei-ta-n* 'bread' O.C.Sl. *ži-to* 'fruit, corn', common ground-form **gei-to-*: A.S. *cī-ð* m. O.Sax. *kī-th* m. or n. Mid.H.G. *kī-t* n. 'offspring' pr. Germ. *kī-þa-*, √ *gei-* 'live, come to life'. Lith. *sẽ-ta-s* O.C.Sl. *si-to* 'sieve'. Lith. *vař-tai* pl., O.C.Sl. *vra-ta* (pr. Slav. **vor-tā*) n. pl. 'door', beside Lith. *vėr-ti* O.C.Sl. *vrěti* 'to shut'. Lith. *gūsz-ta-s* *gūsz-tà* 'nest of fowls and geese': Skr. *gūdhá-s* 'hidden', common ground-form **ghūgh + to-*, or the Skr. word may come from **ghūgh + to-*. *tīl-ta-s* 'bridge'. *mīl-tai* pl. 'meal'. *tvár-ta-s* 'enclosure'. *smars-ta-s* 'stench' (*smard-*). *spar-ta-s* 'bond'. *žlauk-tai* pl. 'husks'. *lėp-ta-s* 'footway', *laip-ta-s* 'scaffolding, gangway'. *maışz-ta-s* *maisz-ta* 'uproar': Gr. *μῑx-tó-s* 'mixed'. *sósta-s* 'seat' beside *sėdmi*. *gel-tà* 'yellowness', beside *geļ-ta-s* 'yellow'. *bank-tos* pl. fem. 'violence, tempest', beside *bank-ta-s* 'violent' (*hangà* 'wave'). *sru-tà* 'filthy liquid': Skr. *sru-tā-s* 'flowing'. *nasz-tà* 'burden'. *vasz-tà* 'cart'. *bras-tà*. 'wading through, ford' (*bredū*). O.C.Sl. *podū-jētū* 'grasp, support' beside partic. *jētū*. *lis-tū* 'leaf'. *otū-vētū* 'answer', cp. Pruss. *way-te* 'parley, conference'. *mos-tū* 'bridge'. *mlatū* 'hammer' (pr. Slav. **mol-tū*). *sū-vito* 'linen' beside partic. *vi-tū*. *jas-to* 'food': Lat. *ēsu-s* etc., see p. 230 f. *lē-to* 'summer, year' orig. 'rainy season', cp. Lith. *lē-tu-s* *ly-tū-s* 'rain'. *pq-to* 'fetter', beside the partic. *pę-tū*. *vrīsta* 'position, stage, age': Skr. *vr̥ttā-m*, see p. 222 above. *krasta* (pr. Slav. **kors-tā-*) 'itch, scab': Lith. *kařsz-ta-s* 'combed, curried'. *pę-ta* 'heel'.

§ 80. 2. *-tā-* as a secondary suffix, forming abstract substantives¹).

The suffix *-tā-* which, as we have seen, formed primary abstract substantives in the proethnic and later periods, as Avest. *cis-tā* 'wisdom', Gr. *ἀρετῆ* 'virtue', Lat. *multa* 'punishment', O.Ir. *ed-bart* f. 'oblatio', Goth. *skan-da* 'shame', Lith. *gel-ta* 'yellowness', O.C.Sl. *vrīs-ta* 'position, stage', (see § 79), had also begun to

¹) G. Bühler, Das Griechische Secundärsuffix *της*, Göttingen 1858. H. Ebel, Die Masculina auf. *-της*, Kuhn's Ztschr. IV 155 ff. Brandstaeter, Die paronymis Craecis in *-της*, Danzig 1852.

be used in the proethnic period as a secondary suffix, and formed abstract substantives from substantives and adjectives alike. It seems to have been even then extended to *-tat-* *-tati-* (§ 102), and in some languages it was partly or wholly superseded by this suffix or by *-tūt-(i)-* (see loc. cit.).

-tā- was fertile in Aryan, Greek, Germanic, and Slavonic.

Indo-Germanic. Lat. *juven-ta*, Goth. *junda* 'youth' pr. Germ. **iun̥un-dō*, ground-form **iun̥un-tā*, beside Skr. *yúvan-* 'young, young man' Lat. *juven-*; cp. **iun̥un-ti-s*, § 101. Before *-tā-*, *o*-stems had either *-o-* or *-e-*; the difference was doubtless connected with a difference in accent (cp. especially Germ. *-é-pō-* and *-e-đō-*). Skr. *pūrṇa-tā-* 'a being full, fullness', O.H.G. *fulli-da* O.Sax. *fulli-tha* O.C.Sl. *plūno-ta* 'fulness', beside Skr. *pūrṇá-s* Goth. *full-s* O.C.Sl. *plünū* 'full'; Skr. *ghōra-tā-* 'awfulness', Goth. *gáuri-tha* 'trouble, beside *ghōrá-s* 'awful' *gáur-s* 'troubled'; Skr. *kṛṣṇa-tā-* O.C.Sl. *črīno-ta* 'blackness', beside *kṛṣṇá-s*, *črīnū* 'black'; Skr. *dīrgha-tā-* O.C.Sl. *dlūgo-ta* 'length', beside *dīrghá-s*, *dlūgū* 'long'.

Aryan. Skr. *dēvā-tā-* 'divinity' from *dēvā-s* 'god'. *nagnā-tā-* 'nakedness' from *nagná-s* 'naked', cp. O.C.Sl. *nago-ta* 'nakedness'. *avīra-tā-* 'want of sons, or children' from *a-vīra-s* 'without sons, or children'. Avest. *yēsnya-tā-* 'adorableness' from *yēsnya-* 'adorable'. Skr. *bandhū-tā-* 'relationship' from *bāndhu-* 'relative, relationship'. *agō-tā* 'want of cattle' from *á-gō-* 'without cattle', cp. Gr. *πολυβοῦτη-ς* 'one rich in cattle'. *aprajās-tā-* 'want of offspring' from *á-pra-jas-* 'without offspring'.

Greek. Here these abstract substantives were used of persons (cp. Skr. *dēvā-tā-* 'divinity' then 'deity, god', O.C.Sl. *juno-ta* 'young man', orig. 'youthfulness'); and they were altered to look like masculines by a change of form in the nom. and gen. sing., just as *γενετή* became *γενετή-ς* (see § 79 p. 229 f.). It is now impossible to distinguish the forms in which this change first took place and which then served as models for the rest. The feminines in *-tā* in their abstract meaning fell out of use in prehistoric times, replaced no doubt by forms in *-tat-*; compare e. g. *βαρύντης -της* 'weight' with Skr. *guru-tā-*

'weight', Goth. *kaúriþa* 'burden', *βραδύ-της -τη-ος* (also *-της τῆτος*) 'slowness' with Skr. *mṛdu-tā-* 'softness'. The following are examples of this change to the masculine gender: —

ἀγρό-της 'dweller in the country' from *ἀγρός*, *δημό-της* 'fellow demesman' from *δῆμος*, *ἵππό-τα* 'charioteer' (*-τα* is the vocative form, which was also used as nominative, see the Author Morph. Unt. II 199 f. Fleckeisen's Jahrbh. 1880 p. 660, G. Meyer Gr. Gr.² 318) from *ἵππος*. *οἰκέ-της* 'member of one's household' from *οἶκος*, which served as the type for *ἐννέ-της* 'sharer of one's bed, husband', beside *ἐννή* and the like. *πολύ-βού-της* 'one rich in cattle' from *βοῦς*. *ναύ-της* 'sailor' from *ναῦς*.

The primary and secondary formations had two points of contact. First, e. g. *οἰκέ-της* and *γενέ-της* had the same ending *-έτης*; and secondly certain of them could be regarded equally well as denominative or as participial formations, e. g. *κορυς-τής* 'helmed, armed man, warrior' *κεράς-της* 'horned creature, ram' *αἰχμη-τής* 'javelin-thrower'.

Italic. Examples are rare. *juven-ta* (see above, p. 239) and its opposite *senec-ta*, *Majes-ta* Vulcan's consort. It is clear that *-tat(i)-* and *-tūt(i)-* have spread at the expense of *-tā-*.

Latin perhaps, as well as Greek, may have had masculines in *-tā-*: *eques equitis* like *ἵππό-τα* and the like. See on this point § 123 Rem. 1.

Germanic. All the forms excepting Goth. *jun-da* (see above, p. 239) had *-iþō-* or *-iðō-*. (the latter is rare, e. g. Goth. *áupida* 'wilderness' from *áup-s* 'waste, desolate'). *-i-* represents the Idg. *-e-* of the *o*-stems; but here and there Idg. *-i-* may have been the original sound, as in O.H.G. *gi-meini-da* 'community' beside Goth. *ga-máini-* 'common, communis'. Even in proethnic Germanic *-iþō-* (*-iðō-*) was transferred to other classes of stems, e. g. to those in *-u-*; the word *jun-da* escaped this change merely because the stem from which it was derived (= Skr. *yúvan-*) had fallen out of independent use.

These abstract substantives were far more frequently derived from adjectives than from substantives.

Goth. *vargiþa* 'damnation' from **varga-* m. O.H.G. *warg* m. 'outlawed criminal, banished evildoer'. Goth. *veitvōdiþa* 'evidence' from *veitvōþ-s* 'witness'. A.S. *ðýfð* O.Icel. *þýfð* 'theft' from *ðeóf þjōf-r* 'thief'. Goth. *háuhþa* O.H.G. *hōhida* 'height' from *háuh-s hōh* 'high'. O.H.G. *heilida* O.Icel. *heilð* 'health' from O.H.G. *heil* O.Icel. *heill* 'healthy'. Goth. *niujiþa* 'newness' from *niuji-s* 'new'. *faþrniþa* 'age' from *faþrnei-s* 'old'. *tulgiþa* 'safety, fortification', from *tulgu-s* 'firm'.

In West-Germanic and Norse *-iþō-* was associated with the verbs in *-jan*, since verbs of this kind were often connected with the nouns from which the *-iþō-* forms were derived and *-i-* was a characteristic mark of their conjugation, cp. e. g. O.H.G. *hōhida* beside *hōhen* (Goth. *hauhjan*) 'to exalt'. Hence arose analogical primary formations, which were most common in High German, as O.H.G. *gi-hōrida* 'hearing' formed from *gi-hōren* (Goth. *ga-hausjan*) 'to hear', *ir-lōsida* 'release' (subst.) from *ir-lōsen* (Goth. *us-lausjan*) 'to release'. Later on these were formed from other verbs than those in *-jan*; as O.H.G. *far-manida* 'contempt' from *far-manōn*, *gi-habida* 'bearing, behaviour' from *gi-habēn*, *ant-findida* 'feeling' from *ant-findan*.

Balto-Slavonic.

In Lithuanian *-tā-* is quite rare in this use, e. g. *sveika-tā* 'health' from *sveika-s* 'healthy'. Possibly *-tā* was not pure Lithuanian, but borrowed from Slavonic; cp. *nogatā* (*nūgatā*) 'nakedness' from Pol. *nagota*, *siratā* 'orphan' from Pol. *sierota* Little-Russ. *syrota*.

Old Church Slavonic. *rabota* 'servitude' from *rabū* 'servant', *gnusota* 'dirtiness' from *gnusū* 'dirt', *sramota* 'shame' from *sramū* 'shame'. *dobrota* 'goodness' from *dobrū* 'good', *pīstrota* 'motley colouring' from *pīstrū* 'motley', *bēlota* 'whiteness' from *bēlū* 'white', *žestota* 'hardness' from *žestū* 'hard'. Some have become 'concrete: *sirota* f. 'orphan', orig. 'bereavement', from *sirū* 'bereaved, orbus' and *junota* m. 'young man', orig. 'youth' from *junū* 'young'. Cp. above, p. 239, Gr. ἀγρό-της etc., and § 157.

§ 81. 3. -to- as a Suffix of Comparison. This class includes the -to- of the ordinal numerals, and the superlative -is-to- which is an extension of the primary comparative-suffix -ies- (§ 135).

An extension of -to- by -mo- forms the superlative-suffix -tmmo-, which was discussed in § 73 p. 177 ff.

Indo-Germanic. The numerals in this period had sometimes -mo- (§ 72, 2 p. 166 ff.), sometimes -to-, sometimes perhaps both forms, e. g. **dek̑mmo-* and **dek̑mto-* 'tenth'. The latter form was the original of Gr. *δέκα-το-ς*, Goth. *taihun-da*, Lith. *desziim-ta-s* O.C.Sl. *desę-tū*. Skr. *cathur-thá-s*, Gr. *τέτρα-το-ς* *τέτρα-ρο-ς*, Lat. *quar-tu-s* for **ctvar-to-s*, O.H.G. *fior-do* (*n*-stem), Lith. *ketviř-ta-s* O.C.Sl. *čętvř-tū* 'fourth'. Skr. *šař-thá-s*, Gr. *ἐκ-το-ς*, Lat. *sex-tu-s*, Goth. *saihs-ta* (*n*-stem), Lith. *szęsz-ta-s* O.C.Sl. *šęs-tū* 'sixth', cp. I § 589 Rem. 2 p. 446. Gr. *εἰκοσ-τό-ς* Boeot. *Ἴικασ-τό-ς* 'twentieth' contrasted with Avest. *vřsqs-tema-* Lat. *vřcęnsimu-s*, see above, p. 177.

Remark 1. **dek̑n* 'ten' has the parallel form **dek̑nt* (Skr. *dařđt-* f. 'decade', Goth. *taihun*, Lith. *dęszimt*, pl. *dęszimt-s*, O.C.Sl. pl. *desęt-e*, see I § 244 p. 202, § 664, 2 p. 522, II § 123); this naturally suggests the comparison, **dek̑mto-s*:**dek̑nt* = **dek̑mmo-s*:*dek̑n*. Cp. p. 167 Rem. And it can hardly be denied that this -to- and the -to- of the cardinal numeral **k̑mto-m* 'hundred' (Skr. *řatá-m* etc.) are identical. I should have more confidence in suggesting this view of **dek̑mto-*, but that the -to- of the ordinal numerals may also be the participial suffix; the *tenth* might be, so to speak, the *be-ten-ed* (cp. Skr. *án-ap-ta-* etc. p. 224), i. e. 'he to whom the number ten has been assigned in an enumeration'.

With the numerals proper is connected Skr. *kati-thá-s* 'which (in a series)?' beside *káti* Avest. *caiti* 'how many?', Lat. *cottř-dię* for **cęet(i)-teř-* (loc.) 'on a day of whatsoever number, on which day soever, every day' beside *quo-t* for **quo-ti* (I § 655, 1 p. 501). Cp. I § 501 Rem. 2 p. 368 § 633 p. 474. It is formed in the same way as Skr. *vřřati-tamá-s* 'twentieth'.

-is-to-, in the proethnic language, was the usual superlative ending where the comparative was formed in -ies-. **lēghisto-s*: Skr. *lágřiřtha-s* 'nimblest, smallest', Gr. *ἐλάχισ-το-ς* 'smallest'. Skr. *svád-iřtha-s* Gr. *ῆδ-ισ-το-ς* Goth. *sut-ist-s* 'suavissimus'. **plęisto-s* 'plurimus' i. e. **plę+isto-*: Gr. *πλείστο-ς*; as regards Avest. *fraęřta-*

O.Icel. *flestr* see p. 244. 247 f. The root-syllable had originally the weak form of Ablaut, and -to- was accented; this is shewn on the one hand by Gr. κράτ-ιστο-ς beside κρείσσων κρείσσων, ὀλίγ-ιστο-ς beside ὀλιζων and the like, on the other hand by Skr. *jyēṣṭhā-s* *kaniṣṭhā-s* and O.Fries. *lērest*, with *r* for pr. Germ. *z*, beside *lēssa* and the like (see Kluge, Paul-Braune's Beitr. VIII 519 ff., Wheeler, Der griech. Nominalacc. 40 f.); cp. also the accentuation of -to- in numerals like Skr. *catur-thā-s* Gr. εἰκοσ-τό-ς O.H.G. *sibun-to* (pr. Germ. *-dō). In the separate branches of language, both the vocalism and the accentuation of these superlatives were influenced more or less strongly by the comparative forms, themselves at the same time reacting upon the latter.

The new suffix -isto- was primary to start with, like the comparative -ies-. But in all the different branches in which it was fertile, i. e. in Aryan, Greek and Germanic, it was very soon used along with -ies- as a denominative (cp. § 58 p. 106 f.).

Aryan. In Sanskrit we find -tha- and -ta-, and (always with the aspirate) -iṣṭha-. In Avest. -tha- is represented by *pux-ḍa-* 'fifth' (cp. Skr. *pañca-thā-*) and *hapta-ḥa-* 'seventh' (Skr. *saptā-thā-*). -tha- therefore certainly dates from proethnic Aryan. Cp. I § 475 p. 350 f.

Remark 2. I cannot follow those who would infer from this another proethnic suffix -tho-, so long as no undoubted example of the aspirate has been found in the European branch. Whence comes the aspirate in Gr. λοιστός 'last'? — The question of the Indo-Germanic Tenuis Aspiratae is not decided even by Moulton's essay, ingenious as it is, in the American Journal of Philology VIII 207 ff., since he is only concerned with the evidence in Greek. What, for instance, do we gain by deriving Gr. τέταστος from *τεταρ-στός and thus reconciling it with Skr. *catur-thā-s*, if all the while Lat. *quar-tu-s* is left out of consideration? (Moulton p. 208.) Why is not the Latin word **quarbus*, with *b* for pr. Ital. *p*?

-ta- occurs e. g. in Skr. *tr-t-īya-* Avest. *pri-t-ya-* O.Pers. *ši-t-īya-* 'third'; beside which we have also Skr. *tri-tā-s* (on which *tr-t-īya-* is based), the name of a divinity to which another, *dvitā-s*, was created as a contrast (cp. the Italic forms), Skr. *ṣaṣ-ṭā-* 'sixtieth', *sapta-tā-* 'seventieth' and the like; cp. also Skr. *pañcāt-* f. 'a group of five' *daśāt-* f. 'a group of ten'.

With Skr. *kati-thá-* (see above, p. 242) are connected *tācathita-* 'such and such a one (in a series)' *bahutithá-* 'manifold'.

-isto-. Skr. *māh-iṣṭha-* Avest. *maz-ista-* 'greatest': Gr. μέγ-ιστος. Skr. *āś-iṣṭha-* Avest. *as-ista-* 'quickest': Gr. ἄκ-ιστος. O.Pers. *maḥ-ista-* 'greatest', beside Avest. *mas-yah-* 'greater': Gr. μακ-ιστος 'longest, greatest'. Skr. *vās-iṣṭha-* Avest. *vah-ista-* 'best'. Skr. *yāv-iṣṭha-* 'youngest', compar. *yāv-īyas-*, pos. *yūvan-gar-iṣṭha-* 'heaviest', compar. *gār-īyas-*, pos. *gurū-*. *sthēṣṭha-* 'most constant', beside *sthi-rá-* (O.H.G. *stara-blint* 'stone-blind'), for pr. Ar. **sthaiṣhta-* Idg. **sta-is-to-* (just as the optative stem Skr. *sth-* is for **sta-i-*, see I § 116 p. 108); similarly *sphēṣṭha* 'richest, fattest' beside *sphi-rá-* (O.C.Sl. *sporū* 'rich'), for **spā-isto-*; the *ē* spread to the comparative, and *sthēyas-* and *sphēyas-* took the place of **sthā-yas-* and **sphā-yas-* (we can hardly assume a form **sthā-īyas-* or **sthā-iyas-*). On the other hand the analogy of *śrē-yas-* and *prē-yas-* gave rise to the superlative forms *śrēṣṭha-* 'fairest' *prēṣṭha-* 'dearest' (which Avest. *sraēšta-* shows to be as old as protoethnic Aryan): in the Veda occur the regular *śray-iṣṭha-* or *śriy-iṣṭha-* (pos. *śrī-rá-* Avest. *sri-ra-*) and *pray-iṣṭha-* or *priy-iṣṭha-* (pos. *priy-á-*).¹⁾ It is also possible that Skr. *jyēṣṭha-* 'mightiest' (comp. *jyā-yas-*) and Avest. *fraēšta-* 'plurimus' (comp. *frā-yah-* Skr. *prā-yas-*) was formed on the analogy of *sthēṣṭha-*; for the Gr. *πλεῖστος* points to an Idg. **plē-isto-*, and the character of these stems, as we know it, in other words, justifies us in restoring this form.²⁾ It cannot be shewn that pr. Ar. *ai* (**jāiṣtha-* **prāiṣtha-*) became *ai* by any regular phonetic change. The words *dhēṣṭha-* 'most generous' and *yēṣṭha-* 'swiftest', to be read in Veda as trisyllables, I should perhaps regard as written for *dhāyīṣtha* *yāyīṣtha-* (or perhaps *dhēyīṣtha-* *yēyīṣtha-*, the original *a* being replaced by *ē*), cp. *bhāyīṣtha*.

1) One of the two forms must be inferred for metrical reasons. In the passages of the Rigveda which concern us the forms of the later language, *śrēṣṭha-* and *prēṣṭha-*, are the traditional reading.

2) Osthoff now takes a different view (Paul-Braune's Beitr. XIII 443); however, he supposes an Idg. **plā-istós*. On O.Icel. *flestr* see below, p. 247 f.

A few noun stems form superlatives in the same way, with *-iṣṭha-* in place of *-tama-*. Skr. *bráhm-iṣṭha-* 'a Brahman in the highest degree' from *bráh-man-* (similarly compar. *bráhm-īyas-*). *drádh-iṣṭha-* 'firmest' (instead of *dárh-iṣṭha-*) from *dr̥dhá-* ground-form **dhr̥gh+to-* (similarly compar. *drádh-īyas-*); this formation was modelled on such forms as *kraśiṣṭha-*: *kṛśá-* 'lean', *bhraśiṣṭha-*: *bhṛśa-* 'strong, violent'.

Greek. *ἔνα-τος* 'ninth' for **ἐνφα-τος*: Goth. *niun-da*, Lith. *deviñ-ta-s* O.C.Sl. *devę-tŭ-* (cp. I § 152 p. 138). The analogy of *εἰκοσ-τό-ς* 'twentieth', *τριᾶκοσ-τό-ς* 'thirtieth' gave rise to such forms as *ἐκατοσ-τό-ς* 'hundredth', *διᾶκοσιοσ-τό-ς* 'two-hundredth', *χίλιοσ-τό-ς* 'thousandth'; and also, *πόσ-τος* 'which (in a series)?', *πολλοσ-τό-ς* 'one of many, multesimus' *ὀλιγοσ-τό-ς* 'one of few'.

The *-ατος* of *ἔνατος* *δέκατος* spread considerably by analogy: **πρωφ-ατος* (Att. etc. *πρωῦτος* Dor. *πρᾶτος*) 'first' instead of **πρω-φος* (I § 306 p. 242 II § 64 p. 134), *τρίτ-ατος* 'third', *ἑβδόμ-ατος* 'seventh', *ὀγδό-ατος* 'eighth'; *ὑπ-ατος* 'uppermost', *ἔσχα-ατος* 'outermost', *μέσση-ατος* 'midmost', *νέ-ατος* 'novissimus'; *βέλτ-ατος* 'best' (for its etymology see Wackernagel Kuhn's Ztschr. XXX 301 f.), *φέρετ-ατος* 'most eminent'. The *-τατος* of *τρίτατος* *βέλτατος* etc. was regarded as a simple suffix and taken into general use as the common superlative suffix for stems whose comparative was formed in *-τερο-* (cp. § 75 p. 193); e. g. *ὠμό-τατος*, *σοφώ-τατος*, *παλαι-τατος*, *εἰδαιμον-έστατος*, *κύν-τατος*. A further accumulation of superlative elements is seen e. g. in *ἑσχα-ατώ-τατος*, *κυντότατος*, which looks like an attempt at **κυν-τατώ-τατος* (cp. *κυν-τερώ-τερο-*) *γαλλ-ιστό-τατος*, *ἐγγ-ιστό-τατα*, and conversely *πρώτ-ιστος*. Cp. Ascoli Curtius' Stud. IX 339 ff.

Remark 3. Bezenberger (Beitr. V 94 ff.) attempts a different explanation of *-τατος*; but I am convinced that it is untenable (see Morph. Unt. III 68 f.).

-isto-. *ὤκ-ιστος* 'quickest': Skr. *ás-iṣṭha-s*. *βᾶρδ-ιστος* *βραδ-ιστος* 'slowest': Skr. *mrad-iṣṭha-s* (a later formation for **mṛd-iṣṭha-s*). *τάχ-ιστος* 'quickest'. *μάλ-ιστα* 'most' (adv.) *πλεῖστος*

ground-form **plē-isto-s*; see pp. 242, 244 above. Later on, analogical formations were made from noun stems: *κάλλ-ιστο-ς* 'fairest' from *τὸ κάλλος*, *ἄλπν-ιστο-ς* 'loveliest, most agreeable' beside *ἔπ-αλπνο-ς*, *τέρπν-ιστο-ς* 'most delightful' from *τερπ-νό-ς*, *πρέσβ-ιστο-ς* 'oldest, most honourable' from *πρέσβυ-ς*. Here *-ιστο-* took the place of *-τατο-*, as was also the case in *ἐγγ-ιστα* beside *ἐγγύ-τατα* 'nearest', *πόρσ-ιστα* beside *πορρω-τάτω πορσώ-τατα* 'furthest forward'.

Italic. Lat. *sex-tu-s*, Umbr. *sestentasiaru sextentarium*' Osc. *Σέσσις* 'sextius': Skr. *śaś-ṭhá-s* etc., see p. 242 above. Lat. *quīntu-s* *Quīnctiu-s*, Osc. *Πομπτις* 'Quinctius': Avest. *pux-ḍa-* (the *u* is remarkable), Gr. *πέμπ-το-ς* Goth. *fimfta-* (in our records found only in composition), Lith. *peñk-ta-s* O.C.Sl. *pę-tū*. Lat. *ter-tiu-s*, Umbr. *tertiām-a* 'ad tertiam', by the side of which stands Lat. *trit-avo-s* (if this and not *strit-avo-s* was the true form of the word), for the first part of which either **trito-s* or **tritio-s* may be assumed as the earliest form (see § 34 p. 59): Skr. *tri-tá-s* *tṛt-īya-s* (p. 243), Gr. *τρι-το-ς* Lesb. *τέρ-το-ς*, Goth. *pri-dja* Lith. *trėczia-s* O.C.Sl. *tretŭj*. In any case the forms **ter-to-* **tṛ-to-*, which are connected by ablaut are older than **tr-i-to-*, which was derived directly from the cardinal (*tr-i-tr-ej-*), though there would be nothing in the least irregular in its formation, if the *-to-* of the ordinals is really the participial suffix, as was suggested in Rem. 1 (p. 242). We have it extended by *-jo-* in *ter-tiu-s* etc. as in Skr. *dvī-t-īya-* 'second' and *túr-ya- tur-īya-* 'fourth' (§ 63 p. 133). Side by side with *cottī-diē* (see above, p. 242), we have *quo-tu-s to-tu-s quo-tumu-s* (§ 73 p. 178). In Latin the superlative suffix *-isto-* gave place to the new formation *-issimo-*; contrast e. g. *ōc-issimu-s* (comp. *ōc-ior*) with Skr. *ḍś-iṣṭha-* (*ḍś-īyas-*) Gr. *ὠκ-ιστο-ς* (*ὠκ-ίων*). It is not clear in what way this substitution took place, see § 73 Rem. p. 179.

Remark 4. It must be left an open question whether *-isto-* is still preserved in proper names, whether e. g. *Nostiu-s* stands for **Novist-iu-s* and is to be compared with Skr. *nāv-iṣṭha-s*, as Pauli (Altital. Stud. II 140 f.) assumes.

Old Irish. *cōiced* O.Cymr. *pimphet* 'fifth': cp. Skr. *pañca-thá-s*. Similarly *sessel* Mod.Cymr. *chweched* 'sixth'; as to the cause of this new formation see Zimmer, Kuhn's Ztschr. XXX 214. We frequently find the termination *-mad*, which arose from an extension of older forms in *-mmo-*; as *sechtmad* Mod.-Cymr. *seithuet* 'seventh' (cp. Lat. *septimu-s*), *dechmad* Mod.Cymr. *decuet* 'tenth' (cp. Lat. *decimu-s*), *cētmad* Bret. *kandred* 'hundredth', see § 72, 2 p. 168. In protoethnic Celtic *-eto-s* was the termination of all these words, and the difference of vocalism between O.Ir. *cōiced* (with *e*) and **sechtmad* (with *a*) depends upon the kind of sound in the preceding syllable: *sechtmad* is due to the older form **sechtamet(os)*. *tress-* 'third' in comp. no doubt stands for **tris-to-*, i. e. **tris* (= Skr. *trī-ś* Gr. *τρι-ς*) + *-to-* (beside it in Mod.Cymr. we find the form *trydydd* from **tri-tijo-s*) cp. Lat. *trīnī* for **tris-no-* § 66 p. 146 and O.H.G. *dris-ki* 'ternus' *zweis-ki* 'twofold'.

-isto- in Keltic gave place to *-mo-* (*-is-mmo-*), see § 72, 2 p. 169, cp. e. g. O.Ir. *lugem* 'smallest' (compar. *laigiū*) as contrasted with Skr. *lāgh-iṣṭha-s* Gr. *ἐλάχ-ιστο-ς*.

Germanic. The numerals passed into the *n*-declension. Goth. *saiḥsta* O.H.G. *sehsto* O.Icel. *sette sētti* 'sixth': Skr. *ṣaṣ-ṭhá-* etc., see p. 242 above. Goth. *niunda* O.H.G. *niunto* O.Icel. *njunde nīundi* 'ninth', pr. Germ. **niyun-dá-n-* (I § 179 p. 156): cp. Gr. *ἑναρο-ς*. In Goth. *ahtu-da* O.H.G. *ahtodo* 'eighth', we have a formation peculiar to Germanic, cp. Gr. *ὀγδο(F)ή-κοντα* Vulgar Lat. *octuā-ginta*.

-isto-. In the oldest West-Germanic the inflexion of the superlative was almost exclusively weak (*n*-declension); in Gothic and Norse it was both strong and weak. Goth. *sut-ist-s* O.H.G. *suaz-isto* 'sweetest': Skr. *svādd-iṣṭha-*. Goth. *háuh-ist-s* O.H.G. *hōh-isto* 'highest'. Goth. *máist-s* O.H.G. *meisto* 'most' (compar. *máiza mēro*), cp. Umbr. *mestru* fem. 'maior', common ground-form **mā-isto-* beside the pos. O.Ir. *mā-r* Goth. *-mēr-s* 'great'. The O.Icel. *flest-r* 'plurimus', together with the compar. *fleire*, which cannot be referred to **plēis-* (Osthoff, Paul-Braune's Beitr. XIII 444), I suppose to have been altered on the analogy of

mest-r meire; cp. pp. 242 f. 244 and § 135. We often find new formations from noun-stems: Goth. **jūh-ist-s* (inferred from *jūhiza*) O.H.G. *jung-isto* O.Icel. *ōrst-r* (for **ōst-r*, *r* being inserted from the compar. *ōre*) and *yngst-r* 'youngest', from Goth. *jugg-s* etc. = pr. Germ. **iunūn-gá-s* Skr. *yuva-śá-s*; this new form took the place of another which answered to the Skr. *yáv-iṣṭha-s*; this must have been before Verner's law came into operation, as the word has *-h-* instead of *-g-*, which shews that in the noun from which it was formed (**iūnaxá-*) the breathed spirant had not yet become voiced (I § 530 p. 386 f.). Goth. **alp-ist-s* (inferred from *alpiza*) O.H.G. *altisto* 'oldest' beside Goth. *al-þei-s* O.H.G. *al-t* 'old'. Accumulated endings of comparison are seen in e. g. Goth. *af-tum-ist-s* A.S. *aef-tem-est* 'hindmost, last' beside Goth. *af-tuma*, O.H.G. *af-tr-isto* 'last' beside *af-tro- af-tero*.

Since *-ista-* and *-iz-en-* became denominative so early in proethnic Germanic, it is not surprising that before that period ended they were added to *-ō-*, the adverbial termination of the *o*-stems, just as was the Gr. *-taro- -τερο-* in *σοφώ-τερο-ς ἀνω-τέρω* etc. (§ 75). Thus arose forms like Goth. *sniumundōs* 'more hastily', from *sniumundō* 'hastily', *frōdōza* 'more shrewd' *frōdōst-s* 'most shrewd', from *frōþ-s* 'prudent', O.H.G. *blintōro blintōst* from *blint* 'blind' (*aftr-ōsto* beside *aftr-isto* (see above) and the like), O.Icel. *spakare spakast-r* from *spak-r* 'intelligent'. In Gothic this formation was always strictly confined to *o*-stems; in Old High German was occasionally extended to other adjectival stems. Pr. Germ. *-ō-izō- -ō-ista-z* became *-ōzō. -ōsta-z*, cp. I § 142 p. 127. Slavonic has a similar group of comparatives, the forms in *-ě-jŕ*; see § 135.

Remark 5. This explanation of the comparative suffix in Germanic has not been universally accepted. (Johansson, *De derivatis contractis*, p. 182). But it is certainly not disproved by the forms *māiza div-s* (for **māis- āiyo-*). It is quite possible that *āi* had here become *āi* (see I § 614 p. 464) before this new method of forming comparatives had been adopted in proethnic Germanic. Each period has its own phonetic laws.

Balto-Slavonic. Lith. *desziñ-ta-s* O.C.Sl. *desę-tŭ* 'tenth': Gr. *δέκα-ρο-ς* etc., see above, p. 242.

-isto- in Lithuanian gave place to *-iāus-ia-* which (in spite of

J. Schmidt's objections, Kuhn's Ztschr. XXVI 378) is no doubt connected with Slav. *-uchŭ -ŭchŭ* (Miklosich Vergl. Gramm. II 289 ff.); whilst in Slavonic the comparative displaced the superlative formation.

§ 82. 4. The Suffixes *-my-to-*, *-uŋ-to-*¹⁾.

In proethnic Indo-Germanic there were a certain number of formations in *-to-* which were extensions of stems in *-men-* and *-uŋ-*. **kley-my-to-*: Skr. *śrō-mata-m* 'renown' O.H.G. *hliumunt* m. 'report, reputation' beside Avest. *srao-man-* n. Goth. *hliu-ma* m. 'hearing', $\sqrt{kley-}$ 'to hear'. Gr. *ὀνόματα* pl. 'names' Lat. *cōgnō-mentu-m*, beside Skr. *nā-man-* n. 'name' Lat. *nō-men* n. etc. Gr. *κασσύματα* pl. 'something stitched together, soles; contrivances, plots' (prep. *κάτ*), Lat. *as-sū-mentu-m* 'patch put on', Skr. beside *syū-man-* n. 'band, strip, row', Gr. *ὀμῆν -ένος* 'skin, sinew'. **per-uŋ-to-*: Skr. *pār-vata-s* 'mountain, rock' Gr. *πεῖρα* Lesb. *πέρατα* pl. 'extremes, boundaries', for **περ-φατα* (I § 166 p. 146 f.), beside Skr. *pār-van-* n. 'knot, joint, break, section' Gr. *ἀ-πείρων* 'boundless' for **ἀ-περ-φων*.

Probably this use of *-to-* is to be connected with that discussed p. 224, where we saw that the participial *-to-* could be added directly to noun-stems. From **kley-men-* was first formed **kley-my-tó-* (*hliumunt* indicates that *-to-* was accented) 'called, famed' (cp. Gr. *θαιματό-ς* beside *θαῦμα*, orig. stem **θαι-μεν-*); the neuter, used substantivally, had the meaning 'a being called, renown', and then in High German the gender of the word was altered to match that of *ruof*, *ruom*. Gr. **ὄνο-ματο-ν* orig. 'the being named, having a name'; Lat. *cōgnōmentu-m* 'the having a surname', beside *cōgnōminātu-s*, like *sceles-tu-s* beside *scelerātu-s*, *liber-tu-s* beside *liberātu-s*. Skr. *pār-vata-s* is easily explained as an epithet of *giri-ś* 'mountain'.

Remark. The following formations are akin to those just discussed: Skr. *sī-mān-ta-s* 'crown of the head, boundary' beside *sī-mān-* m. 'parting of the hair, crown of the head' f. 'boundary', Gr. *ἰ-μάντ-* (f) 'strap' beside *ἰ-μωρ-ιά* 'rope of a draw-well' O.Sax. *sī-mo* 'band, rope' (*ἰ-μάντ-* instead of **ἰ-μάντ-* see p. 250 f.); Skr. *hē-man-tā-s* 'winter' beside *hē-man* loc. 'in

1) The Author, Morph. Unters. II 220 ff.

winter'; *aś-man-ta-m* 'fire place' beside *dś-man-* m. 'stone'. In the first word the Idg. ending was perhaps *-mḡ-to-*, see I § 230 p. 196; the accent was shifted from *-to-* to *-mḡ-* doubtless through the influence of **sī-mén-*, the stem from which the word was formed, just as in Sanskrit the accent of **śró-man-* n. changed **śrōmatā-m* to *śrōmatam*. On the other hand, *hēmantá-s* and *aśman/a-m* may be later analogical forms dating from the period after the separation of the languages and based on the strong form of the parent stem, as in *etśan-tama-* and the like. Or has *hēmantá-s* any immediate connexion with the Gr. *ἄ-χρ(μα)το-ς* mentioned on p. 225?

In most languages these combined suffixes, even when they did not die out, survived only in a few old forms and were no longer in living use; in Germanic besides *hlíumunt* the only other example is Goth. *sniu-mundō* 'hastily' (from **sneḡ-men-* 'haste') which presupposes an adj. **sniu-munda-* cp. Gr. *θauμα-τό-ς*. But in Italic *-mḡ-to-*, and in Greek *-mḡ-to-* and *-uḡ-to-* became exceedingly fertile.

Greek. Forms like *ὀνόματα* are: *εἶ-ματα* 'clothes' (cp. *εὖ-εἶμων* 'well clothed' Skr. *vās-man-* n. 'covering'), *δέρ-ματα* 'hides, skins', *ὑπο-δήματα* 'sandals', *μνή-ματα* 'memorials', *καλύμ-ματα* 'veils', *νοή-ματα* 'thoughts', *ὀρυμή-ματα* 'longings'. Like **περ-φατα* we have *εἶδ-ατα* 'food' in Hom., i. e. *ἔδ-φατα* or (with assimilation) *ἔδδ-ατα* (cp. I § 166 p. 147), *φρή-ατα φρέατα* 'wells' (for **φρή-φατα*), *στῆ-ατα* 'lumps of fat' (for **στᾶ-φατα*, $\sqrt{\text{stā}}$ 'to stand'). Stems in *-men-* and *-uen-* were regularly extended in this way; and *-to-* also attached itself to neuter stems in *-en-*: e. g. *ἥπ-ατα* 'livers' (Skr. *yakan-* Lat. *jecin-*), *οὔθ-ατα* 'udders' (Skr. *ūdh-an-*), *κράτ-ατα* 'heads' for **κράσ-ατα* **καρασ-ατα* (Skr. *śīrś-an-*); to which *κρήνη* Lesb. *κράννᾱ* and *κάρηνο-ν* (for **κράσ-ν-ᾱ* **καρασ-ν-ᾱ*) are related in the same way as *νόοννυ-ο-ς* to *ὀνόματα*. The nom. and acc. sing., e. g. *ὄνο-μα*, and the loc. pl., e. g. *ὀνό-μασι*, must be forms of the original *n*-declension without *-to-*. But along with these there were in use such case-forms as *ὀνόμα-τα*, *ὀνομά-των*, and *ὀνόμα-τος* (= Skr. adverbial ablative *nāma-tas*); and as though these were really to be divided *ὀνόματ-α* *ὀνομάτ-ων* *ὀνόματ-ος*, a new form was made for the locative, *ὀνόματι*. Thus the *το*-stem passed over to the *τ*-declension. In the same way *ι-μαρτ-* (see

p. 250 Rem.) was no doubt developed from **í-μάν-τος*, cp. Skr. *sīma-tās*.

Italic. Lat. *testā-mentu-m*, Osc. *trístaamentud* abl. 'testamento'. In Latin we sometimes find only the original form in *-men*, as *āgmen*, *crīmen*, *certāmen*; sometimes *-mento-* as well, e. g. *augmen* and *augmentu-m*, *suf-fīmentu-m*, *regimen* and *regimentu-m*, *fundāmen* and *fundāmentu-m*; sometimes only *-mento-*, as *armentu-m*, *caementu-m*, *dēlectāmentu-m*, *argūmentu-m*, *vestīmentu-m*. Further, *unguen-tu-m* was formed from *unguen* as *-mentu-m* from *-men-*, just as in Greek *ῥήματα* arose on the model of *ὀνόματα*, **περ-φατα-* etc.

§ 83. The Suffix *-ko-* *-ka-*. This is shewn to be proethnic by the word **juuṃṃ-kó-s* or **juuṃṃ-kó-s* 'youthful, young', beside Skr. *yúv-an-* Lat. *juv-en-* (for the initial sound see I § 117 p. 109 f. § 598 p. 452 f.): Skr. *yuva-śá-s*, Lat. *juven-cu-s*, O.Ir. *ḡac ḡc*, Goth. *jugg-s*¹⁾. Compare also *lōpā-śá-s* 'fox, jackal', Armen. *aluēs* 'fox', Gr. *ἀλώπη-ξ -τε-ος* and (in the Iambic writer Ananios) *-τη-ος* 'fox', with *-κ-* for *-κο-*, with the same change of inflexion as in *μεῖρα-ξ*: Skr. *marya-ká-s* etc. (§ 84. 129), beside Skr. *lōpā-ka-s* 'fox' (*-ka-* had originally a diminutive force), Gr. *ἀλωπό-χρους* 'fox-coloured' *ἀλωπό-ς* 'sly', Lith. *lāpė* 'fox'; in some of the languages, no doubt, the word may have been borrowed and naturalised, nor can we be certain that the suffix of Gr. *ἀλώπηξ* is not *-γο-*, and so identical with the *-ka-* of Skr. *lōpā-ka-*.

Beyond these words a few examples from Aryan are all that can be ascribed with certainty to the suffix *-ko-*.

Aryan. In Skr. *arva-śá-s* *ārva-śa-s* 'hasty, travelling quickly' from *ārvan-* (same meaning); *ēta-śa-s* 'hasty', from *ēta-s* (the same); *babhru-śá-s* *babhlu-śá-s* 'brownish' from *babhrú-ṣ*

1) Here perhaps *ῥάκ-ινθο-ς* also should be classed (for the diminutival force of *-ινθο-* see A. Döhring, Programm des Friedrichs-Collegiums, Königsberg 1885 p. 15). The youth Hyacinthus and his early death represent the life of the physical world, where maturity is at once followed by decay. If this etymology is correct, it proves the existence of an Indo-Germanic stem **juuṃen-* with an initial *j* (not *i*), see I § 598 p. 452.

'brown'; *rōma-śá-s lōma-śá-s* 'hairy', from *rōman-* *lōman-* n. 'hair of the head'; *aŋku-śá-s* 'hook' beside *aŋku-rá-s* (p. 199).

Armenian. *aluēs* 'fox', see above.

Greek. *άλωπιγξ* 'fox', see above.

Italic. Lat. *juven-cu-s*, Umbr. *ivengar* pl. 'iuvencae', see above.

Old Irish. *ḡac ḡc* 'young', Mod.Cymr. *ieuanc* O.Corn. *iouenc* Bret. *iaouank*, see above.

Germanic. Goth. *jugg-s* O.H.G. O.Sax. *jung* O.Icel. *ung-r* 'young', pr. Germ. **iunwō-gá-s* (I § 179 p. 156), see above. For Goth. *jūhiza* O.Icel. *ōre* 'younger' see I § 530 p. 387, II § 81 p. 248.

Balto-Slavonic. We can scarcely place in this group Lith. *pálsza-s* 'tawny' O.C.Sl. *pelesŭ* 'dark grey' beside Lith. *paľ-va-s* O.C.Sl. *pla-vŭ* 'tawny'. These forms no doubt arose (as we may infer from the Russ. *pelesyj* 'variegated' *polosa* 'stripe, streak') through a confusion of $\sqrt{pel-}$ with $\sqrt{perk-}$ (Gr. *πέλοχος* *περκνό-ς*).

§ 84. The Suffixes *-qo-* *-qā-*, *-iqo-* *-iqā-*, *-īqo-* *-īqā-*, *-ūqo-* *-ūqā-*, and *-āqo-* *-āqā-*¹⁾.

The velar character of the *k-* sound in the suffixes which we are now to discuss appears regularly and unmistakeably in Aryan, Armenian and Balto-Slavonic (see I § 417 ff. p. 305 ff.). In Greek, Italic, Keltic and Germanic it can be identified with certainty only in the comparatively rare cases where we find the *k*-sound labialised (*kʷ*), as in Lat. *antī-quo-s*, Mod.Cymr. *hys-p* 'dry'. The remaining examples in this group of languages have only *k* without any following *u*; yet it is clear that these forms, except of course such as we have already seen reason

1) J. Budenz, Das Suffix *κός* (*κός*, *ακός*, *υκός*) im Griechischen, Gött. 1858. C. von Paucker, Die [lat.] Deminutiva mit dem Suffix *-ulus*, *a*, *um*, Ztschr. f. österr. Gymn. 1876 p. 595 ff. L. Meyer, Das Suffix *ka* im Gotischen, Kuhn's Ztschr. VI 1 ff. Id., Die deutsche Abstractbildung auf *ung*, Bezenb. Beitr. III 151 f. Fr. Kauffmann, Die innere Stammform der Adjectiva auf *-ko* im Germanischen, Paul-Braune's Beitr. XII 201 ff. A. Bezenberger, Die lett. Gradationsformen auf *-āks*, in his Beitr. V 97 ff.

to refer to the suffix *-ko-* (§ 83), did originally contain *q* not *k*, because a large number of them correspond exactly to forms in the Eastern group which vouch for *-go-*; thus examples like Lat. *mus-culu-s*: Skr. *muṣ-kā-* Armen. *muḵn* prove that the Latin diminutival suffix *-culo-* is derived from *-go-*. It must be confessed, however, that no real difference of meaning can be found between the suffixes *-ko-* and *-go-*, and it is therefore quite possible that amongst the examples of *-ko-* in the Western languages which are given in this section, there may be some few forms which are really derived from *-ko-*.

-go- is used both as a primary and as a denominative suffix. No general definition can be given of its original function in its primary use. In derivatives *-go-* and *-iqo-* were used to form adjectives (and substantives based upon adjectives) meaning 'related, or belonging to' the thing or person denoted by the original word, which was generally either an adverb or some case of a noun. Further, *-go-* was added to substantives, without altering their substantival or adjectival character, but to give a slight modification of meaning; the derivative signified 'a thing tantamount to' or 'that which merely resembles' the original. Hence it was often used to form diminutives. This modification of meaning again, was often lost, so that the derivative was simply equivalent to the original word. As to the functions of *-iqo-*, *-ūqo-* and *-aḡo-*, see below.

Analogical changes of many kinds, affecting the final sound of the stem to which *-go-* was added, arose even in proethnic Indo-Germanic, and still more freely after the separation of the languages, but we can seldom trace the course of their development in early times. The facts are exceedingly confused, and the classification which follows must be regarded simply as an attempt to reduce them to some kind of order.

In Greek, Italic and Keltic *-go-* was often transferred to the consonantal declension, e. g. Gr. *μειρα-ξ*: Skr. *marya-kā-s*. Cp. Gr. *ἀλώπηξ* § 83 p. 251 and § 129.

§ 85. 1. -go- as an original primary suffix. On the whole it is not common.

Indo-Germanic. None of the forms to be mentioned here are found in more than a few languages. Skr. *dhā-ká-s* 'receptacle', Gr. *θῆ-κη* 'receptacle', $\sqrt{dhē-}$ 'τιθέμαι'. Skr. *pīva-sphaká-s* 'swelling with fat', Lett. *spē-k-s* 'strength', (beside *spē-t* 'to be able'), $\sqrt{spē-}$ 'extend, become rich'. It is no doubt also primary in Lat. *siccu-s* O.Ir. *ses-c* 'unfruitful' Mod.Cymr. *hys-p* 'dry' pr. Kelt. **siskyo-s*, common ground-form **sīt-go-s*, cp. Lat. *sit-i-s* (I § 419 p. 307).

Aryan. Skr. *śuṣ-kā- śūṣ-ka-* Avest. *huṣ-ka-* O.Pers. *uš-ka-* 'dry' $\sqrt{says-}$ (I § 557, 4 p. 413). Skr. *āt-ka-*. Avest. *a-ḥka-m*. 'garment, covering'. Skr. *stú-kā-* 'tress'. Avest. *sao-ke-m* 'advantage'.

Armenian. *bok* 'barefoot' ground-form **bhos-go-* (I § 561 p. 417), cp. O.H.G. *bar* 'naked, bare' O.C.Sl. *basŭ* 'barefoot'. Or is -go- here a secondary suffix?

Greek. *θῆ-κη* 'receptacle': Skr. *dhā-ká-s*, see above.

Italic. Lat. *siccu-s*, see above. Beside it we have also *tesquo-s*, for **ters-quo-* (I § 269 p. 217), $\sqrt{ters-}$ 'to become dry, arid'. *cas-cu-s* beside *cānu-s* for **cas-no-s* (cp. Osc. *casnar* 'senex'); for the function of the suffix cp. *pris-cu-s* § 88. A stem **fa-co-* is implied in *-fex* (*arti-fex* etc.), hence *fa-c-iō*. *fācundus* and *fēcundus* imply **fā-co-*, **fē-co-*, see § 69 p. 161. *tru-c-s* beside *truāre* is no doubt another example, see O. Ribbeck Archiv f. lat. Lexicogr. II 122 f.

Old Irish. *ses-c*, Mod.Cymr. *hys-p*, see above. *bris-c* Bret. *bres-k* 'brittle' no doubt from $\sqrt{bherdh-}$ (Gr. *πίρω*); the ground-form will then be **bhγdh+go-*, see I § 298 p. 236. For Celt. *-sk-* coming from *-tk-* see I § 516 p. 376.

Germanic. O.Icel. *lqs-k-r* 'soft, lazy', pr. Germ. **lat-kya-z*, beside Goth. *lētan* 'to let, permit', *lat-s* 'lazy, idle', $\sqrt{lēd-}$ *lēd-*. O.H.G. *ras-c* and *ros-ch* 'quick, clever, strong' O.Icel. *rask-r* 'bold, brave', pr. Germ. **raskya-z* and **ruskya-z*, ground-form **rot-go-* and **gt-go-*, $\sqrt{ret-}$ (O.H.G. *rado* 'quickly' Goth. *rap-s* 'easy'). O.H.G. A.S. *horsc* 'quick, cutting, clever' O.Icel. *horsk-r*

'clever', Goth. *and-hruskáip* 'he investigates', ground-form probably **kʰt-qo-*, cp. Goth. *hard-u-s* 'hard' Gr. *χατ-ύ-ς* 'strong'; cp. also Mid.Eng. and Dan. *harsk* 'rough, hard' with another grade of vocalism. O.Icel. *beis-k-r* 'sharp', beside Goth. *báit-r-s* 'biting, bitter', ✓ *bhejd-*. For *-sk-* from *-tk-* see I § 527 p. 383. Here should also be classed O.Icel. *þrosk-r-* 'bold' *vask-r-* 'bold' O.H.G. *frisc* 'brisk, lively, alert' and other similar words (Kluge Nom. Stammb. p. 89), though only, perhaps, as later formations with a suffix *-sk(y)o-* abstracted from the older forms with *sk* = *tk* (cp. p. 18 f.).

O.Icel. *lau-g* f. 'bath' from pr. Germ. **lau-ǵō-*, cp. O.Icel. *lauð-r* 'soap' Lat. *lav-ere*.

Balto-Slavonic. Lith. *pil-ka-s* 'grey' beside *pelėti* 'to grow mouldy' *pelė* 'mouse', cp. also *pelėka-s* 'mouse-grey'. Lith. *plūs-k-i-s* 'one that has ruined himself, spendthrift'. Lett. *plus-ka* 'slovenly vagabond, scamp' *plūs-kas* f. pl. 'sluice', beside Lith. *plūs-ti* 'to begin to swim, run over'. Lett. *rusch-ka* 'filthy fellow' *pe'lnu-ruschk-i-s* 'Cinderella'. properly 'ash-stirrer' (Lith. *pelen-rūsà* and *-rūsi-s*), beside Lith. *rūsinti* 'to rummage, stir'. Lett. *lišchē-i-s* 'flatterer' properly 'licker' *kréima-laischē-i-s* 'cream-licker', a name of the fore-finger. Lett. *spé-k-s* 'strength': Skr. *pīva-sphāká-s*; see above, p. 254. O.C.Sl. *zna-kū* 'token'. *bra-kū* 'marriage, wedding', which we may perhaps derive from *berq bīrati* ✓ *bher-*.

§ 86. 2. -qo- as a secondary suffix forming adjectives (and substantives based upon adjectives) from adverbs and inflected nouns with the meaning 'related, or belonging to' what is denoted by the original word, where the nature of the relationship or connexion may vary very widely.

a. From Adverbs.

Indo-Germanic. Skr. *anti-ká-s* 'coming to an end with or at something, near' (*ánti* 'over against, in sight of, near'), Lat. *antī-quo-s antī-cu-s* 'preceding in space or time or order, more important, earlier, old' (*ante* for **anti*). Skr. *ánt-ka-m* 'that which is turned towards one, the side turned to one, front, face, point' Avest. *ainika-* m. 'front', Gr. *ἐνι-πῆ* 'attack,

rebuke' (Osthoff, *Morph. Unt.* IV 223). Skr. *nī-ca-* low, going downwards', Gr. *νι-κάω* ('bring low, fight down') 'conquer' (hence *νί-κη* with the meaning 'victory', like Lat. *pūgna* from *pūgnāre*, H.G. *handel* m. from *handeln*, *opfer* n. from *opfern*), Lith. denom. *ny-k-stù* 'I disappear, pass away' (*auksztỹ-naika* adv. 'backwards' and others, with non-original ablaut) O.C.Sl. *ni-cǐ* 'pronus' for **nī-k-jǐ*.

Aryan. Skr. *ucca-s* Avest. *uska-* adj. 'on high, high' Skr. *ūtka-s* 'longing for something' ground-form **ud + go-* **ud + ge-*, beside Skr. *úd* 'up'. Skr. *ábhi-ka-s* *ábhi-ka-s* 'coming after a thing, lustful' beside *abhí abhí*. Skr. *ánu-ka-s* 'coming after a thing, desirous, dependent' *ánū-ka-m* 'backbone', beside *ánu*.

Such forms as these in *-ika-* *-ūka-* were in Sanskrit associated with compounds in *-y-añc-* *-v-añc-* (*-añc-* 'directed towards something', cp. § 163), and this led to a number of new formations. See Osthoff loc. cit. 249 ff.

Greek. *πέρι-ξ* adv. 'around', *περισσό-ς περιττό-ς* 'superfluous, extraordinary, superabundant' for **περι-κ-μο-ς*, beside *πέρι*. As in the case of the adverbs *μονάξ* and *ὀδάξ* from **μοννα-κο-*, **ὀδατ-κο-* (§ 88), a nom. in *-κ-ς* instead of *-κο-ς* was first formed, *πέριξ* instead of **περι-κο-ς* (cp. *μεῖρα-ξ* § 84 p. 253, § 88 pp. 263. 265), and then on the analogy of adverbs like *παρ-έξ* *ἐπ-έξ* *ἄψ* etc. it came to be regarded and used as an adverb.

From a stem **περᾱ-κο-* (cp. *πέρᾱ* 'beyond' *πέρᾱ-ν* 'on that side') arose *περάσσω*, the oldest meaning of which was 'press through, go through' (Hom. *ἄλα πρήσσοντες*), see Leo Meyer, Kuhn's *Ztschr.* XXII 61 ff.

Italic. Lat. *reci-procu-s* orig. 'directed backwards and forwards' from **re-co-* and **pro-co-*, cp. O.C.Sl. *pro-kū*. *procul* is an extension of the stem **proco-* by *-lo-* cp. *simul*').

Germanic. O.H.G. *abu-h* *aba-h* O.Sax. *abhu-h* 'turned away, perverse, wicked', (the neut. is used substantivally, 'per-

1) Detailed arguments in support of this explanation of *reciprocus* and *procul* will be found in Rhein. Mus. XLIII 402 ff., where, unfortunately, I overlooked the fact that the same derivation had already been suggested by Corssen, *Krit. Nachtr.* 136 f.

verseness, wickedness') O.Icel. *qfu-g-r* 'turned away, perverse', beside *af* 'from, away': cp. O.C.Sl. *opako opaky opače* adv. retrorsum, contrarium' *pače* 'contra, potius' *paky* 'iterum' (*opače: pače* = Gr. *ἄνο* : O.H.G. *fo-na*, a regular example of proethnic ablaut); cp. also Skr. *ápaka-s* 'lying behind, remote', which need not necessarily be regarded as a compound of *-añc-* (cp. p. 256 under Aryan).

Balto-Slavonic. O.C.Sl. *pro-kū* 'remaining over', from *pro. prē-kū* 'transversus' for **per-kū*, from *prē*.

b. From Nouns. The terminations *-o-go-* *-e-go-* which arose when the suffix was added to *o*-stems were in Aryan and Slavonic also used as primary suffixes.

Indo-Germanic. Skr. *dvi-ka-* 'consisting of two' (beside this *dva-ká-* 'two by two, joined in pairs'), A.S. *twi-3* O.H.G. *zwī-g* and *zwī* gen. *zwīes*, pr. Germ. **tvi-3wá-* 'twig' (cp. O.C.Sl. *roz-ga* 'twig' from *rozū razū* 'dis-'), O.H.G. *zweho zwīfo* 'doubt', pr. Germ. **tvi-3wo-n-* **tvi-3wo-n-* (I § 444 p. 329); to which no doubt we should refer Gr. *δισός διττός* 'twofold', for **dfi-x-3o-s*. Similarly Skr. *tri-ká-* 'three by three, threefold' and Gr. *τρισός τριτός* 'threefold'. The Ion. *διξός τριξός* are perhaps to be explained as standing for **dfi-x-3o-s* **tri-x-3o-s*. Lat. *ūni-cu-s*, Goth. *aina-h-s* O.H.G. *eina-g* 'single', O.C.Sl. *ino-kū* 'solus'.

Aryan. Skr. *sūcī-ka-s* adj., 'stinging', subst. 'stinging vermin', from *sūcī-* f. 'needle', *anta-ka-s* 'making an end, he that makes an end', from *án-ta-s* 'end'. *urvāru-ká-m* 'that which belongs to the gourd-plant (*urvāru-ṣ*), or comes from it, fruit of the gourd'. *sīndhu-ka-s* 'coming from the Indus (*sīndhu-ṣ*)'. *rūpa-ka-s* 'in (an assumed) form', from *rūpá-m* 'form'. Avest. *kasvi-ka-* 'rather small, rather poor', from *kasvi-ṣ* 'smallness, dwarfish stature'. Skr. *māma-ka-s* 'my', *asmāka-s* Avest. *ahmaka-* 'our' (is the termination of this word Idg. *-o-go-* or the suffix *-āgo-*?). Hence Ar. *-ka-*, so frequent in Sanskrit in adjectival (epithetised) compounds as Skr. *vigata-śrī-ka-s* 'whose beauty is past' (cp. Avest. *dūraṣ-srī-ka-* 'beautiful at a distance') *a-bhrātṛ-ka-s* 'brotherless', *a-rētás-ka-s* 'without seed', *sa-patnī-ka-s* 'with one's wife'; cp. also Avest. *hu-mayā-ka-* 'possessing good wisdom'

(*hu-mayā-*). These compounds however may also be classed under § 88 p. 264.

From *ánta-ka-s* and similar forms arose a primary suffix *-aka-*, as Skr. *sáyaka-s* 'meant for throwing' neut. 'missile', *nāyaka-s* 'guide', *pācaka-s* 'cooking, cook', *pṛchaka-s* 'who asks'. Cp. Slav. *-okŭ*, p. 260.

To these no doubt should be added *vartaka-s vártikā* 'quail': Gr. ὄρνις (gen. ὄρνικ-ος and ὄρνυγ-ος, cp. Osthoff, Zur Gesch. d. Perf. 620) 'quail', with *v* on the analogy of κόκκυς, ἴβυς and the like.

Greek. δι-σός-ς τρι-σός-ς p. 257 above. Λιβυ-κό-ς 'Libyan', from Λιβυ-ς; θηλυ-κό-ς 'feminine', from θηλυ-ς, as the opposite of ἀρσενι-κό-ς; in ἀλυκό-ς adj. 'salt' from ἄλ-ς (ἄλι- ἄλο-) the *-v-* is surprising. φυσι-κό-ς 'natural', from φύσι-ς, μαντι-κό-ς 'belonging to a seer', from μάντι-ς; cp. Idg. *-igo-* in ἰππ-ικό-ς etc., § 87. ὄστα-κο-ς 'lobster' no doubt for **osth-go-s*, cp. Skr. *asthán-* 'bone'. The termination *-ιακό-ς* in ἡλιακό-ς 'belonging to the sun' (ἥλιο-ς), σκιακό-ς 'shady' (σκιά) and the like has not been explained: are the forms based on *-en-* stems (such as, say, *ἡλιεν-), or should we compare Umbr. *cur-n-ac-o* 'cornicem'?¹⁾

Italic. Lat. *amni-cu-s*, from *amni-s*, *cīvi-cu-s*, from *cīvi-s*, *aedili-c-iu-s*, from *aedili-s*. Cp. Idg. *-igo-* in *bell-icu-s*, *patr-icu-s*, *patr-ic-iu-s* and the like, § 87.

The following forms appear to be connected with the same suffix: Umbr. *Kastrusiie* 'Castricii' (beside *kastruvuf* 'fundos') Osc. *castrovs* gen. 'fundi') and Osc. *Iúvkiiúí* '*Jovicio', beside Osc. *Viínikiís* 'Vinicius'.

Old Irish. *sūile-ch* 'oculus' for **sūli-co-s*, from *sūil* n. 'oculus', O.Kelt. *are-mori-cī* 'those who dwell before the sea' (O.Ir. *muir* n., Lat. *mare* for **mari*). Cp. Idg. *-igo-* in *cuimn-ech* 'mindful of' and the like, § 87.

Germanic. Goth. *stáina-h-s* (stem *stáina-ha-*) O.H.G. *steina-g* 'stony', from Goth. *stáina-* m. 'stone', Goth. *vaúrda-h-s*

1) Mahlow, Die langen Vocale 102, assumes that *-ιακό-ς* with Lat. *-icu-s* Goth. *-eig-s* represents an Idg. *-iako-*, an inference which I cannot accept.

'verbal' from *vaúrda-* n. 'word', *mōda-g-s* (stem *mōda-ga-*) 'wrathful' O.Sax. *mōda-g* 'excited, spirited', from Goth. *mōda-* m. 'courage, wrath'. The forms *-a-ha-* *a-za-* alternate according to the place of the accent, by the rule given in § 530 p. 386, cp. Skr. *asmāka-anḍīka-* on the one hand, and *ēkaká-urvāruká-* on the other. The termination *-a-za-* was transferred to other classes of stems, e. g. O.H.G. *nōtag* beside Germanic *naudī- nauþi-* 'need', O.Sax. *craftag* beside *krafti-* 'strength'.

Goth. *handu-g-s* 'wise' (O.H.G. *hantag* 'sharp') from *handu-s* 'hand', though it is quite possible that the two words are not connected historically but merely by popular etymology (see Kluge, Nom. Stamm. 86, Kauffmann, Paul-Braune's Beitr. XII 202)¹).

Chēruscī is explained by Bremer (Paul-Braune's Beitr. XI 3) as coming from **χērus-ka-* 'hairy', cp. O.H.G. *hār* pl. *hārir* 'hair'. For *-us-* cp. O.H.G. *angus-t* § 101.

In protoethnic and later Germanic we find adjectives in *-īza-* regularly corresponding to *-i-*stems, as Goth. *mahteig-s* O.H.G. *mahtīg* 'mighty' from *mahti-*, O.H.G. *creftīg* 'strong' from *krafti-*. But the same termination appears also in adjectives derived from other classes of stems and equally dating from the oldest period of Germanic, as Goth. *váurstveig-s* 'active' from *váurstva-* n. 'work, activity', O.H.G. *jārīg* 'yearly' from *jāra-* n. 'year'; and it must therefore be referred to the Idg. suffix *-īqo-* (§ 89); there is no need to suppose an original *-ei-qo-* (**maxti- *maxtei-*), nor can any argument for such a form be based on the obscure Gothic word *ūhtiug* 'seasonable'. We conclude then that in protoethnic Germanic *-i-za-* from *i-*stems was replaced by *-īza-*, just as in Gothic we have also the older form *gabig-s* altered to *gabeig-s* (§ 87). The influence of other derivatives with *ī* in actual use (e. g. Goth. *váurstvei* f.) was a factor in the change.

Balto-Slavonic. In the Baltic languages the suffix hardly occurs at all in this use; Lith. *pelēka-s* Lett. *pelēk-s* 'mouse-grey' (Lith. *pelė* Lett. *pele* 'mouse') was no doubt formed on the analogy

¹) Osthoff's last suggestion as to *handugs* (Paul-Braune's Beitr. XIII 419) does not commend itself to me.

of adjectives like *jǔdǔka-s* (from *jǔ'da-s* 'black', § 89 c). In Slavonic we have *-okǔ* as a primary suffix, e. g. O.C.Sl. *sǔvǔdǔokǔ* 'privy to something, witness', Russ. *chodǔk* 'goer, foot-messenger', *ǔdǔk* 'eater'; it probably began in derivatives from noun-stems in *o* (cp. Russ. *chod* 'way, path' beside *chodok*), cp. Skr. *-aka-* p. 258.

§ 87. 3. *-igo-*, a by-form of the Suffix *-go-* (§ 86). This suffix forms adjectives from nouns in Aryan, Greek, Italic and Keltic, and it is so common that it can hardly have arisen independently in the separate languages from the ending of such forms as Gr. *φυσι-ρό-ς* (*φύσι-ς*). Further in Germanic and Balto-Slavonic, as well as in Sanskrit and Latin, *-igo-* is a primary suffix, and this usage must have been derived from its denominative use; so that clearly it had become a single independent suffix in proethnic Indo-Germanic. But of course there is nothing to prevent our supposing that it did originally spring from noun-stems in *-i-*.

Aryan. Skr. *paryāy-iká-s* 'strophic' from *paryāyá-s* 'rotation, strophe'. It occurs most frequently after the vridhhi-strengthening, which serves also to form adjectives without the addition of any suffix (see § 60 p. 112 f.; cp. *māma-ká-s*, 'my' beside *māma-ka-s*, § 86 b p. 257), as *vāsant-ika-* 'belonging to spring' (*vasantá-s*), *vārṣ-ika-s* 'belonging to the rainy season' (*varṣá-m*), *ahn-ika-s* 'daily' from *áhan-* n. 'day'. But *-ika-* was not adopted in general use as an adjectival suffix, cp. *rúpa-ka-urvāru-ká-* etc., § 86 b p. 257.

It is primary in Skr. *vṛṣc-ika-s* 'scorpion, tarantula', from *vṛṣcāmi* 'I split, cut asunder'.

Greek. *ἵππ-ικό-ς* 'belonging to horses' from *ἵππο-ς*, *παρθεν-ικό-ς* 'maidenly' from *παρθένο-ς*, *νυμφ-ικό-ς* 'bridal' from *νύμφη*, *ἀστ-ικό-ς* 'of the city' from *ἄστυ*, *ἐθν-ικό-ς* 'national' from *ἔθνος* n., *ἀγων-ικό-ς* 'belonging to contests' from *ἀγών*, *ἀνδρ-ικό-ς* 'manly' from *ἀνήρ* gen. *ἀνδρ-ός*. From participial stems in *-to-* there arose a new suffix *-τικο-*; e. g. *κριτικό-ς*, *μαθητικό-ς*, cp. Lat. *-tico-* p. 261.

By the side of *-ικό-ς* we find, though only rarely, *-ρό-ς*, as *Αἰβυ-ρό-ς*; see § 86 b.

Italic. Lat. *mod-icu-s* from *modu-s*, *bell-icu-s* from *bellu-m*, *fabr-ica* from *faber* (stem *fabro-*), *gent-icu-s* from *gēns* (stem *gent-*), *histriōn-icu-s* from *histriō* (stem *histriōn-*), *patr-icu-s* from *pater* (stem *patr-*); participial stems in *-to-* gave rise to *-tico-* as an independent suffix, e. g. *cēnāticu-s*, *herbāticu-s*, *volaticu-s*, *rūsticu-s*, *domesticu-s*, cp. Gr. *-τιχο-* above. Similarly *-ic-iu-s* in *caement-iciu-s*, *sūtōr-iciu-s*, *patr-iciu-s* etc.

The Umbro-Samnite dialects shew that *-ico-* was proethnic in Italic, so that (say) *modicu-s* was not developed in Latin out of **modo-co-s*: Osc. *túvtíks* 'publicus' *tottico* nom. fem. 'publica', Volsc. *toticu* abl. 'publico', Umbr. *totcor* pl. 'urbici' from **tōtico-*, a derivative of *toytd-* 'civitas, urbs'; Umbr. *fratreks* *fratrexs* 'fratricus, fratrum magister' *fratreca* 'fratrica' (e from i, see I § 33 p. 34). Cp. also Osc. *Viínikiís* 'Vini-cius' and *múíníkad* abl. fem. 'communi', *múltasíkad* abl. fem. 'multaticia'. But we also find Umbr. *Kastrúsiie* and Osc. *Iúvkiíuf* (§ 86b p. 258), which are hard to explain with certainty.

-iqo- is a primary suffix in Lat. *mord-icu-s* *mord-ex*, *med-icu-s*, *vert-ex*; and no doubt also in *pōdex* for **pozd-ex* ✓ *pezd-* 'pedere' (I § 594 p. 450). Compare the root-vowel of this word with Goth. *gabig-s* (*pōdex*: *pēdere* = *gabigs*: *giban*).

Old Irish. As in Latin, *-ico-* is a general derivative suffix, i. e. it forms derivatives from all manner of stems. *cúimn-ech* 'mindful of' from *cuman* 'thought, remembrance', *cretm-ech* 'fidelis' from *cretem* 'fides'; feminines in *-iche* = Lat. *-ic-ia*, as *tairismiche* 'immobility' from *tairism-ech* 'immovable' (*tairissem* 'a standing fast'). It is possible however that some of the words in *-ech -iche* (Zeuss² 810 sq.) contain *-iāco-* or *-āco-*.

Germanic. The fertility of *-iza-* was limited on the one hand by the use of *-a-χα-* *-a-za-* (§ 86), on the other by that of *-īza-* (§ 89 a). In Gothic it does not occur as a secondary suffix, but it does in Old High German; e. g. *wuot-ig* beside *wuota-g* 'furious'. It is primary e. g. in Goth. *gab-ig-s* 'rich' beside *giban gaf* 'to give', cp. Lat. *pōd-ex*, O.H.G. *heb-ig* 'at which one must strain or heave, heavy' (beside Goth. *hafjan*).

But here too other suffixes encroached upon its use, cp. Goth. *gabeig-s* beside *gabig-s*, O.Icel. *gǫfug-r* *hofug-r*.

On the other hand, *-iza-* is sometimes found where *-za-* must no doubt have been original (§ 88); O.H.G. *entrig* 'strange' (pr. Germ. **andr-izá-*) from *ander* 'other'; possibly however *-iza-* may here represent Idg. *-e-go-* (§ 88 p. 268).

Balto-Slavonic. Here it is not uncommon as a primary suffix. In Lithuanian the root has the vowel of the preterite (cp. Lat. *pōdex*, Goth. *gabigs*). Lith. *szér-ika-s* 'one who gives fodder' from *szeriù* 'I give fodder' pret. *szérian*, *kirt-ika-s* 'hewer' from *kertiù* 'I hew' pret. *kirtaũ*, *skund-ika-s* 'who loves to lament', *tup-ika-s* 'squatter'. Lett. *jum-ik-i-s* 'tile-setter' from *ju'mt* 'to cover', *glân-ik-i-s* 'spy' from *glânēt* 'to lurk', *u'rb-ik-i-s* 'borer' from *u'rbt* 'to bore'. O.C.Sl. *žez-ikŭ* 'burning' from *žega* 'I burn' (trans.), *tež-ikŭ* 'burdensome, heavy' from *težiti* 'to burden', *skac-ikŭ* 'grasshopper' (springer), *meč-ikŭ* 'bear' (growler), *smýč-ikŭ* 'fiddler'; more frequently we have *-iči*, as *yad-iči* 'eater' *pis-iči* 'writer' *šiv-iči* 'cobbler', *žir-iči* 'offerer, priest'.

There is a class of substantives derived from adjectives which may contain this Idg. *-igo-*, though I do not feel certain that it is so, such as Lith. *jaunik-i-s* 'betrothed husband' (*jáuna-s* 'young'), Lett. *melnik-i-s* 'black horse' (*meln-s* 'black'), O.C.Sl. *rožančĭ* 'bow' (*rožanŭ* 'of horn') *bradatčĭ* 'bearded man' (*bradatŭ* 'bearded') *junčĭ* 'young bull' (*junŭ* 'young').

§ 88. 4. *-go-* is added to substantives and adjectives without altering their substantival or adjectival character; the meaning of the new word bears to the old much the same relation as Mod.H.G. *schwärzlich* to *schwarz*, [Eng. *blackish* to *black*], i. e. it denotes something 'tantamount to' or something which is merely 'like' the original. From this a diminutival sense was often developed, and hence *-go-* was used in forming familiar and pet names. Yet this modification of meaning frequently died out, so that the new word meant simply the same as the old.

The boundary between this class of words and those given under 2 *b* and 3 (§ 86 and 87) fluctuates considerably. It is

often doubtful whether any particular word belongs to one or the other category.

The diminutival *-go-* is often combined with other diminutival elements, e. g. Lat. *-culo-* = *-go-* + *-lo-*.

Indo-Germanic. Skr. *muṣ-ká-s* 'testicle' *mūṣaka-s* *mūṣikā* 'mouse, rat' (*mūṣ-* *mūṣa-s* *mūṣā* 'mouse'), Armen. *mu-k-n*, gen. *mkan*, 'mouse, muscle', Lat. *mus-culu-s* (*mūs*), O.C.Sl. *myšica* 'arm'. **sū-go-* from **sū-* 'sow': Skr. *sū-karā-s* 'pig, boar' (popularly derived from *kar-* 'to make' as 'that which makes the noise *sū*'), Lat. *su-culu-s* *su-cula*, O.Cymr. *hu-cc* 'sus' Corn. *ho-ch* 'porcus', A.S. *su-zu* f. 'sow' (unless we accept Bugge's derivation of this A.S. word from Idg. **suu-*, Paul-Braune's Beitr. XIII 509 f.). Lat. *bā-cula*, Mid.Cymr. *bu-ch* 'cow'. Armen. *ju-k-n*, gen. *žkan*, 'fish', Pruss. *suckans* i. e. *zu-ka-ns* acc. 'fishes', Lith. *žū-k-mistra-s* 'fish-master', beside Gr. *ἰχθῦς* Lith. *žuv-l-s* 'fish' (for the initial sound cp. I § 554 Rem. 1 p. 407 and Bartholomae Ar. Forsch. II 56). Skr. *ajaka* *ajikā* 'little goat' (*ajā-s* 'he-goat' *ajā* 'she-goat'), Lith. *oszkā* (*ožỹ-s* 'he-goat'). Skr. *avi-kā-s* *avi-kā* 'sheep' (*āvi-š* 'sheep'), Lat. *ovi-cula*, Lith. *avi-kỹnė* 'sheep-pen' (*avī-s* 'sheep') O.C.Sl. *ovī-ca* 'sheep'. Skr. *marya-kā-s* 'mannikin' (*mārya-s* 'man, young man'), Gr. *μειραξ* 'girl', later also 'boy' *μειράκιον* 'boy'. Skr. *pāsu-ka-* m. pl. 'dust' (*pāśu-š* 'dust'), O.C.Sl. *pēsū-kū* 'sand'.

In names of persons: Skr. *dēvaka-s* *dēvika-s* beside *dēva-s* *dēva-datta-s*, Gall. *Dīvicō* *Dīvicia* beside *Dīvō* *Dēvo-gnata*; Skr. *śunaka-s* beside *śunas-karṇa-s*, Gr. *κύναξ* beside *Κύν-αγο-ς*; Skr. *sana-ka-s* beside *sana-śruta-s*, Gall. *Seniccō* *Seneca* beside Bret. *Hen-car*, O.H.G. *Sinigus* (Latinised) beside *Sino* *Sin-hart*.

sene-go-* (seno-go-*) meaning probably 'oldish', from **seno-* 'old' (Skr. *sāna-s* &c.): Skr. *sana-kā-s* 'former, old', Lat. *senex* *senica*, (Gall. *Seniccō*, *Seneca*; O.Ir. *senchas* 'antiquity', see § 108), pr. Norse *sinigōstēr* nom. pl. masc. 'oldest' from **sinig-* (cp. F. Burg, Die älteren nord. Runeneinschr. 1885, p. 130 f.). Frankish *Sinigu-s* (Goth. *sineig-s* 'old' see § 89 a), Lett. *senz-i-s* (z for k) 'old inhabitant, a man of olden time'. Armen. *ancu-k* *anju-k* O.C.Sl. *qzū-kū* 'narrow', beside Skr. *qhū-š* 'narrow'.

Aryan. Skr. *aśva-ká-s* 'little horse' from *áśva-s* 'horse', *śíśu-ká-s* 'little child' from *śíśu-ś* 'child', *rāja-ká-s* 'petty king' from *rājan-* 'king'. Avest. *drafša-ka-* m. 'little banner' from *drafša-* m. 'banner', *aper'nāyū-ka-* m. 'little child' from *a-per'-nāyu-* m. 'child' (orig. 'not of full age'), *kaini-kā-* 'little girl' beside *kainin-* f. 'maid, maiden'.

Familiar and pet names, e. g. Skr. *vasu-ka-s* O.Pers. *vahu-ka* beside Skr. *vasu-ś vasu-datta-s* Avest. *vohu-data-*, Skr. *datta-ka-s* *dattika-s* beside *datta-s* *datta-śatru-ś agni-datta-s*.

No difference of meaning can be detected in the following examples. Skr. *vádha-ka-s* and *vadhá-s* 'murderer', *ásta-ka-m* and *ásta-m* 'home', *iṣu-kā-* and *iṣu-ś* f. 'arrow', *uda-ká-m* and *udán-* n. 'water', Avest. *mašyaka-* and *mašya-* m. 'mortal, man', *pasu-ka-* and *pasu-ś* m. 'cow' (cp. Skr. *paśu-kā-* a small animal), O.Pers. *spanaxa* (Herodotus) and Avest. *span-* 'dog'.

Similarly there is no serious difference in meaning between Skr. *arbha-ká-s* and *árbha-s* 'small', *nágna-ka-s* and *nagná-s* 'naked', *ējāt-ká-s* and *ējant-* 'trembling, quivering', *añīyas-ká-s* and *añīyas-* 'thinner, finer' (cp. Lat. *melius-culu-s*). Thus adjectival compounds like *vigata-śrī-ka-*, which we noticed in § 86 p. 257, may also be classed here. In Sanskrit, forms like *śikṣu-ka-s* 'imparting, generous' (*śikṣu-ś* the same), *pramḍyu-ka-s* 'falling into ruin, perishing' (*pramā-yu-ś*, the same) and the like gave rise to an independent primary suffix *-uka-*, e. g. *dāśuka-s* 'biting', *vi-kāsuka-s* *vi-kasuka-s* 'bursting'.

For feminine substantives the usual suffix is *-ikā-* (corresponding to masc. *-aka-*), as *nāsika-* du. beside *nāsa-* du. 'nose', *iyattikā-* fem. of *iyattakā-* 'so small'. Whilst the forms in *-akā-* express the fem. by simple differentiation (*Motion*) of the masc.-neut. stem *-aka-*, *-i-kā-* was originally derived from fem. *i-* stems (cp. also Avest. *nāirika-* beside *nāiri- nāiri-* 'wife', *carāitika-* 'girl, wife' beside *carāiti- carāiti-* 'wife').

Armenian. A further suffix *-en-* was added to the stems of the substantives formed with *-go-*. We have already noticed *mukn* 'mouse, muscle' from **mus-go-* or **mūs-go-* (I § 561 p. 417) and *ju-k-n* 'fish'. To these should be added *armukn*, gen.

armkan 'elbow, hend' (beside Lat. *armu-s* Goth. *arm-s*); perhaps its resemblance to *mukn* is more than accidental.

ancu-k anju-k 'narrow' see p. 263 above.

Greek. With a diminutival or contemptuous sense, more or less obscured: *μῆραξ* 'girl' (p. 263), *δέλφαξ* 'pig, sucking pig', *βῶμαξ* 'small altar', *λίθαξ* 'stone', *λείμαξ* 'meadow'. Attached to these are unmistakable diminutives like *μειράκ-ιο-ν* 'little boy' *σπινθήράκ-ιο-ν* 'little spark' (cp. *ἀσπίδ-ιο-ν* 'little shield' § 63 p. 128). Add also pet names like *Ἰππακο-ς* beside *Ἰππο-ς* *Ἰππ-αρχο-ς* *Ἀρχ-ιππο-ς*, *Πύρρακο-ς* beside *Πύρρο-ς*, *Λύβραξ* beside *Λάβρο-ς*, *Φαῖναξ* beside *Φαῖνο-ς*, *Μόλυκο-ς* *Μόλνξ* beside *Μόλο-ς* *Μόλ-ορχο-ς* *Ἀγγί-μολο-ς*.

The *α* which precedes the *-κ(ο)-* in *-ακο-ς* *-αξ* points to *-p-go-* as the earlier form (cp. *ὄστακο-ς* § 86 p. 258 and Skr. *rājaka-* for **rājṣ-ka-*, Germ. *-un-za-*). Thus *Ἰππακο-ς* (: *Ἰππων*), *λείμα-ξ* (: *χειμῶν*) and the like may have set the type for this group of forms; *Ἰππακο-ς*: *Ἰππων* = O.H.G. *Berhtung*: *Berhto* (see below, p. 267). *μῆραξ* for **μερρα-ξ* (: Skr. *marya-ká-s*) may perhaps be an extended form from a stem **μερρη-*.

ὀδαξ 'with the teeth, mordicus' was derived from a stem **ὀδατ-κο-** *ὀδακκ(ο)-* 'tooth': Skr. *a-datka-* 'toothless', A.S. *tusc* or *tāsc* O.Fris. *tusk* O.Icel. *tosk-r* 'tooth' pr. Germ. **tuns-ka-*, common ground-form **dnt-go-*, beside *ὀδούς* Goth. *tunþ-u-s* 'tooth' (cp. I § 527 p. 383). But *δάκνω* obviously influenced its meaning and perhaps its form also. In the same way we have *γνύ-ξ* 'with bended knees' from *γνυ-* 'knee'. As to their use as adverbs see § 86 p. 256.

πηλί-κο-ς 'how great? how old?' *τηλί-κο-ς* 'so great, so old' from **παλι-** **ταλι-* = Lat. *quāli-s tāli-s*: similarly O.H.G. Alemann. *we-lēr* 'how produced?' *so-lēr* 'thus produced' pr. Germ. **li-χα-*, cp. also O.C.Sl. *kolikŭ tolikŭ* § 89 a. Beside Att. *ήλίκο-ς* *ήλιξ* stands *βαλικιώτης* (more correctly *-τας*) *συνέφηβος*. *Κρητίς* in Hesychius, which points to a form **syalī-*.

Italic. Lat. *homun-c-iō* 'mannikin' from *homō*. **albi-co-* 'whitish' **nigrico-* 'blackish' in *albicare nigricare*. *pris-cu-s* beside

prius. paucu-s for **pavi-co-s* (cp. *pauper* for **pavi-per*). *sene-x seni-ca*: Skr. *sana-ká-s* see above, p. 263.

The usual suffix is *-culo-*, i. e. *-go-* + *-lo-*, the second of which is itself diminutival (§ 76 p. 205 f.). This extension of the suffix dates from proethnic Italic, and in many words was no doubt intended to revive the diminutival force which at the time was disappearing or had quite disappeared. Lat. *ovicula*: **ovica* (Skr. *avi-ká*) = *lupula*: *lupa*; similarly *pauculu-s*: *paucu-s* = *frigidulu-s*: *frigidu-s*.

bū-cula: Mid.Cymr. *bu-ch* 'cow'. *su-culu-s*: O.Cymr. *hu-cc* 'sow', Lat. *diē-cula*, Osc. *zi-colom* 'diem' (the diminutival sense of *-colo-* has disappeared). Lat. *fūni-culu-s*, *classi-cula*, *spē-cula*, *nūbē-cula*, *frāter-culu-s*, *amātor-culu-s*, *homun-culu-s*, *aedificātiun-cula*, *mus-culu-s*, *corpus-culu-m*, *arbus-cula*, *corculu-m* (i. e. **cord* + *culum*).

Remark 1. The *i* in *crāticula*, *febricula*, *apicula* and similar words may be variously explained. The first analysis must certainly be *crātic-ula* not *crāti-cula*. Cp. § 89 a p. 271.

seniculu-s: *senex*, *nigriculu-s*: *nigricāre*, *leviculu-s*, *dulciculu-s*, *pauperculu-s*, *melius-culu-s*, *tardius-culu-s*, (cp. *prīs-cu-s* and Skr. *aṇīyas-ká-s*).

Keltic. O.Cymr. *hu-cc* 'sus' Corn. *ho-ch* 'porcus': Skr. *sū-karā-s* see p. 263 above; we must no doubt add O.Ir. *socc* 'ploughshare', properly 'pig's snout', see Thurneysen, *Keltorum*. 112 f. 1). Mid.Cymr. *bu-ch* 'cow': Lat. *bū-cula*. *aire* (gen. *airech*) 'princeps' for **ariak-s*, Skr. *ārya-ka-s* 'honourable man', from *aryá-* 'devoted, pious'. Proper names: Gall. *Divicō Divicia*, see above, p. 263.

Remark 2. Here may also be mentioned O.Ir. *menicc* Mod.Cymr. *mynych* 'frequens', though their relation to Goth. *manag-s* 'much', and O.C.Sl. *mīnogŭ* 'much' is not clear. Does the Slav. word contain Idg. *-go-* (§ 91)? Or should we regard it as a word borrowed from Germanic? Cp. Schleicher in his and Kuhn's *Beitr.* V 112 f.

Germanic. A.S. *tusc* or *tāsc* 'tooth' ground-form **dyt-go-*, see above, p. 265.

1) Cp. Gr. *ὑν-ς ὕνη* 'ploughshare', which is usually connected with *ὑ-*; (cp. Solmsen, Kuhn's *Ztschr.* XXIX 81).

-go- was added to *-en-*, which formed substantives denoting a thing or person standing in some characteristic relation to the idea of the original word; hence arose in proethnic Germanic the suffix *-uŋa-* (and beside it *-iŋa-*, with no difference in meaning). The suffix *-go-* in this use in historical times is merely an amplification of the suffix to which it is added, and has no special meaning of its own; at most we may credit it with some part of the idea of pity or contempt implied in words like O.H.G. *arming* 'homo pauper, miser' *abansting* 'homo invidus', which are common enough. We may compare the relation of O.H.G. *Berhtung Berhting*: *Berhto* (gen. *Berhtin*), *arming*: *armo* (gen. *armin*) 'poor' with that of Gr. *Πύρραγο-ς*: *Πύρραρον*. This compound suffix was soon added to stems with *l*-suffixes, e. g. O.H.G. *sidil-ing* 'settler' from *sedal* 'seat', *edil-ing* 'man of noble blood' from *edili* 'noble'. Thus there arose an independent suffix *-(i)lunŋa-* *-(i)linŋa-*, which was fertile in North and West Germanic.

Remark 3. It is difficult to determine the relation between *-iŋa-* and *-uŋa-*. The latter form appears to be older, e. g. in tribe names like *Greuthungi* (Amm. Marc.). The most natural assumption is that at the time when the connexion between *-uŋa-* and the *en*-stems was still recognised, *e* (later *i*) was introduced through the influence of the cases which had the strong form *-en-* (later *-in-*). Yet it is quite conceivable that *-uŋa-* and *-iŋa-* were contaminated (§ 87 p. 261), or that *-iŋa-* started from stems in *-in-*, which existed in the pre-Germanic period (see § 115); *-iŋa-* *-iŋga-* would come from *-iŋa-* *-iŋga-* just as **junŋa-* *junŋa-* 'young' from **jūnŋa-*, see § 83 and I § 179 p. 156; cp. *Berhting*, O.Icel. *Birting-r* 'a brilliant, famous man' by the side of Goth. *bairhtei* O.H.G. *perah̄ti* f. 'brightness'; O.Icel. *speking-r* 'wise man' beside *speke -i* f. 'wisdom'. There is a good deal of evidence for the last explanation, which seems to me the best; if it be correct, then the *-iŋa-* forms must have been originally adjectival (§ 86 b p. 259); Rem. 4. p. 268.

Examples. O.H.G. *hūsingā* pl. 'penates' ('those who belong to the house') O.Fris. *hūsing* 'member of the household', O.H.G. *chamarling* 'chamberlain' *hofiling* 'courtier', *būring būling būwel-ing* 'peasant' from *bār, bū* 'habitatō', *sidiling* 'settler' from *sedal* 'seat', A.S. *bedling* 'he who lies lazily in bed, effeminatus', O.H.G. *sarling* 'who is hidden in armour (*saro*), soldier', *fūstiling* Mid.H.G. *viustinc* 'mitten', Mid.H.G. *hendelinc* 'glove', O.Icel.

fingrung-r 'finger-ring', Mid.H.G. *bertinc* 'lay brother' from *bart* 'beard', O.H.G. *wihseling* 'changeling', *zwineling* 'twin', O.Icel. *vetrung-r* 'a beast one winter old'. *hofðing-r* 'chieftain, captain'; names of families and tribes like A.S. *Skyldungas* O.Icel. *Skjöldungar*; A.S. *Hrēðling* 'son of *Hrēðel*'; O.Icel. *ättung-r* 'kinsman' from *ätt* 'race', O.H.G. *chunniling* 'kinsman' from *chunni* 'race', O.Icel. *sysprung-r* 'mother's sister's son' O.Fris. *susterling* 'sister's child', O.H.G. *sunufatarungo* pl. 'the people of the son and the father'. These is but one example in Gothic, *gadiligg-s* 'cousin': O.H.G. *gatiling* *gatuling* O.S. *gaduling*.

The use of these forms in the feminine as abstract substantives in Norse and West-Germanic was no doubt established by the same process as in e. g. O.H.G. *forahta* 'fear' contrasted with *foraht* Goth. *faúrht-s* 'full of fear' (§ 79 p. 235 f.); similarly Lat. *fabrica* 'formation manufacture', (from *faber*); cp. also § 158. O.Icel. *haðung* 'an insulting' from *hað* 'insult, scoff', *launung* 'secret' from *laun* (the same), with which primary formations like *kvisting* 'murdering' (from *kvista* 'to murder') became associated. O.H.G. *werdunga* 'dignitas' from *werd*; primary in e. g. *hantalunga* 'handling', from *hantalōn* 'to handle'. In O.Icel. we have also side by side *birting-r* 'bright one' and *birting* 'brightness', *ginnung-r* 'deceiver, impostor' and *ginning* 'deceit', and the like.

Remark 4. If *-inza-* *-inȝō-*, were derived from the suffix *-in-* which is itself used to form abstract substantives (see Rem. 3), we should further have to consider whether the fem. *-in-ȝō-*, as in O.Icel. *birting*, was not formed immediately from the *in-*stem by the addition of *-go-* merely as an amplification.

Adjectival stems were extended by *-go-*, e. g. O.H.G. *gōra-g* 'pitiful' beside Goth. *gāur-s* 'sorrowful', O.Icel. *qrðug-r* 'steep' beside Gr. ὀρϑός Lat. *arduo-s* (I § 306 p. 241). Here must be classed also O.H.G. *entrig* 'strange' (from *ander* 'other'), if the termination is Idg. **-tre-qó-*, not **-tr-igó-* (§ 87 p. 262). *-ȝō-* was generally substituted for the original ending as in Goth. *sineig-s* 'old' (contrast Skr. *sana-ká-s* p. 263), see § 89 a p. 271.

O.H.G. Alemann. *wel̥r* 'how made?' see above, p. 265.

Remark 5. The origin of this word is therefore distinct from that of O.H.G. *wie-lih* Goth. *hvi-leik-s* 'what sort of', a compound of Germ. *-lika-* 'body, form'. But the termination *-li-χa-* was associated with this by popular etymology, just as in Skr. *-i-ka-* *-ū-ka-* *-ā-ka-* were associated with *-ānc-* (see p. 256).

Balto-Slavonic. *-ugo* is common to Baltic and Slavonic as a diminutive suffix. There can be no doubt that it first appeared in *u*-stems, cp. O.C.Sl. *synūkū* 'little son': *synū*, gen. *synu* 'son'. So Lith. *parszūka-s* 'little sucking pig' beside *pařsza-s*, *medūka-s* 'little tree' beside *mēdi-s*, O.C.Sl. *cvětūkū* 'floweret' beside *cvětū* gen. *cvěta*. In Slavonic the same suffix was also used for the extension of adjective stems, yet with the loss of what was originally its special sense: *qzūkū* 'narrow': Armen. *ancuk anjuk* 'narrow' (Skr. *qhú-ṣ*), *sladūkū* 'sweet' (Lith. *saldū-s*); others are not derived from *u*-stems e. g. *bridūkū* 'bitter', *lėpūkū* 'ornament'. Cp. further Pruss. names like *Banduke* (*banda-* 'useful') *Wyrucke* (*vira-* 'man').

Similarly the diminutival *-i-go-*, which first appeared in *i*-stems, was extended beyond its original sphere in both Baltic and Slavonic. Yet *-i-go-* itself is not used with this function, but only *-i-q-jo-* *-i-q-ja-*, which contains the additional suffix *-jo-*. Proethnic examples are: O.C.Sl. *ov̋-ca* 'sheep', cp. Lith. *avi-k-ỹnė* 'sheep-pen': Skr. *avi-kā* etc., see p. 263 above; O.C.Sl. *mys̋ica* 'arm' orig. 'little mouse, muscle': Skr. *mūṣika* 'mouse, rat', cp. loc. cit. In both these words the original diminutival sense was lost. Other examples are: Lith. *rankikė* 'little hand', *kumelikė* 'little (bad) mare', *mamikė* 'little mother' (in Lith. only feminines), O.C.Sl. *kamen̋iči* 'little stone', *korabl̋iči* 'little ship', *děti̋ca* collective 'little children' (*děti* 'children'), *dvr̋ica* 'little door' (*dvr̋i* 'door'). Compare also Prussian names like *Teviko* (*tewa-* *tāwa-* 'father').

Here should also be classed Lith. *-in-inka-* Lett. *-(i)n-ika-en-ika-* († comes from *en*), combinations of suffixes which denote any kind of relation to the original word, e. g. Lith. *darb-ini̋nka-s* (Lett. *da'rbinik-s*) 'worker' from *dārba-s* 'work', *dařž-ininka-s* (Lett. *da'r'nik-s*) 'gardener' from *dařža-s* 'garden', *pūs-ininka-s*

'owner of half a measure of land, small proprietor', *lauk-iniņka-s* 'dweller in the fields, countryman', *Lētūv-ininka-s* 'a Lithuanian' from *Lētuvā* 'Lithuania', Lett. *gudrinik-s* 'wiseacre' from *gudr-s* 'wise', *sweschinik-s* 'stranger' from *swesch* 'strange', *Ridfinik-s* 'man of Riga' from *Rīga* 'Riga', *uppenik-s* 'dweller by a river' from *uppe* 'river'. By the side of this suffix, with a similar meaning, stands Lith. *-in-yka*- Pruss. *-n-ik-i-* O.C.Sl. *-n-iko-*, which I refer to Idg. *-īgo-*, see § 89 a. The second part of Lith. *-in-inka-* should no doubt be identified with Germ. *-un-za-* (cp. I § 249 p. 204 f.), and it must be assumed that in Baltic there once existed forms like **dvarinka-s* **dvarenka-s* 'courtier' (should we add here the forms *měsēcī* 'month' *zajęcī* 'hare', which are quite isolated in Slavonic?) and that their suffix was confused with *-(i)n-īka-* (*dvārinyka-s* O.C.Sl. *dvorīnikū*) producing Lith. *-in-inka-* (*dvārininka-s*) Lett. (**-n-enka-*) *-n-īka-*.

Remark 6. I prefer this view to that proposed in I § 219, 4 p. 186, which I have now abandoned, that Slav. *-ikū* is the phonetic equivalent of Lith. *-inka-s*. I have to thank Leskien for suggesting the above explanation.

§ 89. 5. *-īgo-* *-īqā-*, *-ūgo-* *-ūqā-* and *-āgo-* *-āqā-*. The long vowels preceding the *q* may, like the *i* of *-igo-* (§ 87), represent the final of a noun-stem; but it is not clear in what particular words these forms of the suffix first appeared. No general definition of their functions can be given.

a. *-īgo-*. Cp. Skr. *āntī-ka-* § 86 a p. 256, *sacī-ka-* *sa-patnī-ka-* § 86 b p. 257.

Aryan. It is rarely denominative: Skr. *anḍ-īka-s* 'bearing eggs', from *anḍá-m* 'egg'. More frequently it is primary: Skr. *dfś-īka-s* 'conspicuous' *dfś-īka-m* 'aspect' *dfś-īkā* 'appearance', *vṛdh-īká-s* 'augmenter', *mṛd-īká-m* 'pity, grace'.

In Greek it is rare. *πέροδ-ιξ* 'partridge' (properly 'peditor', though its resemblance to *πέροδω* may perhaps be due merely to a freak of popular etymology), *πέμβ-ιξ* 'top'.

Italic. Denominative forms: *umbil-īcu-s* (cp. Gr. *ὀμφαλό-ς*), *rubr-īcu-s* *rubr-īca*, *lect-īca* and others. Primary forms: *am-īcu-s*, *mend-īcu-s*, *pud-īcu-s*, and others; add also *pēdicāre* from

a stem **pēd-īco-* with the same meaning as *pōdex* (§ 87 p. 261). -īc-*io-* and -t-īc-*io-* (cp. -t-*ico-* § 87 p. 261) are derived suffixes e. g. *novīciu-s*, *ad-ventīciu-s*. Some nouns in -īqo- have passed into the consonantal declension: *fēlīx*, *pernīx*.

Perhaps we should also class here *crāticula* and the like, see § 88 Rem. 1 p. 266.

In Germanic. -īza- appears with various functions. It forms adjectives from nouns, e. g. Goth. *mahteig-s* 'mighty' from *mahti-* 'might', O.H.G. *spenstīg* 'alluring' from *spanst* f. 'allurement, enticement'; here -īza- has taken the place of an older -za- (-i-za- -a-za- etc.), see § 86 p. 259. It extends adjectival stems without altering their adjectival character, e. g. Goth. *andanēmeig-s*: *anda-nēm-s* 'pleasant', O.H.G. *wirdīg*: *werd* 'worthy', *rihtīg*: *reht* 'right'; -za- has the same function, e. g. in O.H.G. *gōra-g*: Goth. *gáur-s* 'troubled', see § 88 p. 268; there can be no doubt that in this use also -īza- has spread beyond its original sphere, cp. Goth. *sineig-s* instead of orig. **sene-qo-* or **seno-qo-* (p. 263). Finally it occurs as a primary suffix, e. g. in Goth. *gabeig-s* beside the older *gabig-s*, see § 87 p. 261.

Balto-Slavonic. Both branches have -īqo- as a secondary suffix, in substantives which are generally derived from adjectives, and express any kind of relation to the original word. In Baltic (Lith. and Pruss.) these forms are nearly always derived from nouns with an *n*-suffix, Lith. -*in-yka-s* Pruss. -*n-ik-i-s*, in Slavonic from others also. In Lithuanian -*ininka-s* is exactly equivalent to -*inyka-s*, but the two suffixes are distributed amongst the various dialects; in some the first, and in others the second was alone in use; in many of the districts bordering on Slavonian territory the Slav. -īnikū- may have helped to establish the form -*inyka-s* (there are a large number of such words borrowed from Slavonic, e. g. *metelnyka-s* 'impostor' = Pol. *mietelnik*). Lith. *darbinyka-s* beside *darbiniñka-s*, etc., see § 88 p. 269 f. Pruss. *laukinik-i-s* 'vassal, feudal dependant' (Lith. *laukinyka-s* *laukiniñka-s*), *slidenik-i-s* 'leading hound', *stubonik-i-s* ('booth-owner' hence) 'cupper, surgeon'. O.C.Sl. *zlatikū* a gold coin (*zlatū* 'golden'), *sīrebrīnikū* *sīrebrīnika* 'silver coin' (*sīrebrīnū*

'silvern'), *krüvnikū* 'murderer' (*krüvniū* 'bloody'), *grēšnikū* 'sinner' (*grēšniū* 'sinful'), *olasēnikū* 'who has a hairy (*olasēniū*) garment'; from participles, e. g. *učenikū* 'scholar, disciple', (*učenū* 'becoming learned') *izbranikū* 'one elected, chosen' (*iz-branū* 'elected'); from subst. e. g. Russ. *babik* 'fop, ladies' man' (*baba* 'woman'), *sēverik* 'north wind' (*sēver* 'north'). In Lithuanian we have only isolated examples of derivatives without the *n*-suffix, as *dalỹka-s* 'piece, part' from *dali-s* 'part'.

O.C.Sl. *sikū* 'talis' (also *sicǫ*, cp. *ljubimicǫ* beside *ljubimikū* and the like) from *sǫ* 'hic', *tolikū* 'tantus' *kolikū* 'quantus', compare also *velikū* 'great' beside *velijǫ* 'great': cp. Gr. *πηλίκο-ς* O.H.G. *welēr* § 88 p. 265.

Further *-ikū* forms diminutives and pet names in Slavonic, as Russ. *domik* 'little house' *mjačik* 'little ball', Lower Sorb. *gašik* 'little pond', *gjarnyk* 'little pot'; Czech *Volik* beside *Vol*, *Vladik* beside *Vlad*, Mod.Slov. *Nanika* 'Annie'.

Primary: O.C.Sl. *-ica*, as *ljubica* 'amator', *žřica* 'sacerdos'.

b. *-ūqo-*. Cp. Skr. *ānū-ka-* § 86 a p. 256.

Aryan. In Sanskrit, it is found primary adjectives containing reduplicated verbal forms, as *dan-daś-ūka-s* 'biting' (cp. *dāśuka-s* 'biting' § 88 p. 264), *jā-jar-ūka-s* 'watchful', *vā-vad-ūka-s* 'talkative'.

Greek. It is found in isolated words as a primary suffix: **ήρῶξ* (Dor. etc. **άρῶξ*) 'herald', cp. Skr. *ca-kar-ti* 'he extols' *karū-ṣ* 'praiser'.

Italic. In Latin it occurs a few times in primary use e. g. *cad-ūcu-s*, *fidūc-ia*, and not more often as secondary, e. g. *aerūca* (beside *aerūgō*) from *aes*, *lactūca* from *lac* (*lact-is*).

In Slavonic it is a primary suffix in a few words, e. g. O.C.Sl. *jěz-ykū* 'tongue, speech' (: Pruss. *ins-uw-i-s* 'tongue'), *vlad-yka* 'ruler, lord', Russ. *kl-yk* 'hewer', pol. *bzd-yk* 'peditor'.

c. *-āqo-*.

Aryan. Here *-āka-* is ambiguous, so that no forms can be said with certainty to be derived from *-āqo-*. Besides Skr. *asmāka-s* etc. (§ 86 b p. 267) the following may be examples: *pavakā-s* Ved. 'clear, pure' (to be read, as the metre indicates,

for the *pāvakā-s* of the Mss.), *jālpāka-s* beside *jalpaka-s* 'talkative', *bhīkṣaka-s* 'beggar'.

Greek. *νέας* 'youth': O.C.Sl. *novākū* 'novice'. *θώραξ* Ion. *θώρηξ* 'breastplate'. *ὄρηξ* Lesb. *ὄρηξ* 'little sprout or shoot'. *πῆληξ* 'helmet'. *σφηξ* 'wasp', which no doubt is for *σφ-ᾱκ-* i. e. 'a creature that lives in swarm', compare Skr. *sabh-ā* 'assemblage' Goth. *sib-ja* 'kinsman' (Baunack, Stud. auf dem Geb. des Griech. I 25).

Italic. In denominative formations: *merācu-s* from *meru-s*, *lingulāca* from *lingulu-s*, *verbēnāca* from *verbēna*; *opācu-s* is no doubt to be compared with *op- ob.* *-āx* is common both in primary and secondary use: *bibāx*, *loquāx*, *persequāx*, *mordāx*, *audāx*, *pūgnāx*, *vērāx*.

Old Irish. *-ako-* is common to all Celtic languages, forming adjectives from substantives, as in *marcach* Mid.Cymr. *marchawc* 'equester' from *marc* 'horse', *cumachtach* Mid.Cymr. *kyfoethawc* Corn. *chefuidoc* 'mighty' from *cumachta* 'might'. It is also found in proper names, as Gall. *Dumnācu-s* Mid.Cymr. *Dyfnawc*, Gall. *Teuto-bōdiaci* (pl.) Mid.Ir. *Buadhach*, Gall. *Benācū-s*; its originally adjectival character appears clearly in place-names in *-ācum* like Gall. *Avitācum* i. e. 'praedium Aviti' (Zeuss² 806).

Germanic. Goth. *áinðhō* Luke 8, 42, fem. of *áinaha* 'unicus', which is usually adduced here, is most probably nothing but a scribe's mistake (perhaps caused by *áinðhun?*).

Balto-Slavonic. Lith. *tōk-s* gen. *tók-io* O.C.Sl. *takū* 'talís'; similarly *kōk-s kakū* 'qualis?', *jōk-s* 'any one' *jakū* 'qualis', *anōk-s* 'of that kind' *onako* adv. 'so', *dvejōka-s dvojakū* 'twofold' *trejōka-s trojakū* 'threefold'. There are only one or two examples to add from Slavonic: e. g. O.C.Sl. *jedinakū* 'aequalis' *dru-gako* adv. 'otherwise' (cp. Lith. *vėnōka-s vėnōk-s* 'of one kind' *kitōk-s* 'of another kind'), but in Baltic this suffix was very fertile in forming new adjectives from those already in use to express an approach to the meaning of the original: Lith. *jūdōka-s* 'blackish' (*jūda-s* 'black'), *silpnōka-s* 'weakish, rather weak'

(*silpna-s* 'weak'), *saldóka-s* 'sweetish, rather sweet' (*saldū-s* 'sweet'), *didóka-s* 'rather large' (*dīdi-s* 'large'); in Lettish it became the ordinary comparative suffix, as in *sa'ldák-s* 'sweeter' (*sa'ld-s*), *labbák-s* 'better' (*lab-s*).

-āgo- was further employed in Balto-Slavonic to form substantives from adjectives to denote something characterised by the quality which the adjective expressed. So Lith. *naujōka-s* O.C.Sl. *novakū* 'novice' (Serv. *novak* 'new moon') from *naūje-s novū* 'new': Gr. *νεᾶξ*; Lith. *trečiōka-s* 'threepenny-bit' (strictly a coin worth three copper groschen) *šesztōka-s* (twice as much), O.C.Sl. *tretijakū* 'a three-year-old'; O.C.Sl. *junakū* 'a youth'; O.C.Sl. *bujakū* 'fool, blockhead'; finally personal names in *-akū*, as Russ. *Gojak*, Czech *Lstak*, *Modlak*.

The difference in accentuation between *trejōka-s* and *trečiōka-s* should be noticed. The Gliding ¹⁾ (*geschliffen*) accent in *tōks* replaced the Incisive (*gestossen*) in consequence of the loss of the final syllable, cp. *tōkio*.

§ 90. The Suffix *-sko-* *-ska-* and (in Germanic and Balto-Slavonic) *-isko-* *-iskā-*. We have to consider chiefly the primary noun-suffix *-sko-*, which is identical with the verbal suffix *-sko-* forming present stems. Occasionally we meet with forms which point to an original *-sgo-*. I must leave it an open question whether to regard these as two entirely distinct forms, or to suppose that the velar was substituted for the palatal in the original suffix by some secondary process, cp. I § 467 p. 342 f. I confess however that the latter view seems to me more probable.

Indo-Germanic. **pr̥k-skā-* 'question, investigation, enquiry' (cp. Skr. *pr̥chāmi* Lat. *poscō*, √ *prēk-*): Skr. *pr̥chā-*, Armen. *harç* (gen. *harçi*, transferred to the *i*-declension), O.H.G. *forsca*. **is-skā-* **ais-skā-* (cp. Skr. *ichāmi* 'I long for, desire', √ *aiś-*): Skr. *ichā-*

1) I am very sorry to depart from Dr. Wright's translation of these terms in Vol. I (p. 558 f.) but the rendering 'slurred' for *geschliffen* and 'broken' for *gestossen* seem to me a little misleading.

'longing, wish', Armen. *aic* 'enquiry' (only found in the accusative and then only in certain phrases), O.H.G. *eisca* 'an asking, demanding'. Skr. *vāncha* 'wish' O.H.G. *wunsc* m. 'wish, desire', beside Skr. *vānchāmi* 'I wish', $\sqrt{y}en-$ 'find pleasure in something'; in Sanskrit, the nasal is due to the analogy of kindred forms (Bartholomae Ar. Forsch. II 91), **vā-ch* is for * $\sqrt{y}ē-sk-$, and *wunsc* for * $\sqrt{y}ē-sko-$.

Aryan. There are but few examples to be added from Sanskrit. *mūrcha-* 'weakness' beside *mūrchāmi* 'I freeze, grow torpid' (compare *mūrkhā-* 'stupid, dull, unintelligent' which may be classed with *sargā-* and the like, I § 467, 1 p. 342 f.), beside *mār-tā-s* 'curdled'; if Goth. *un-tila-malsk-s* 'thoughtless' and O.Sax. *malsc* 'haughty' come from the same word, its form in pr. Idg. would be **m̥l-sko-*. *mlēchá-s* 'foreigner, barbarian', beside *mlēchāmi* 'I jabber'; the Pāli form *milakkha-* is still obscure, in spite of E. Kuhn's attempt to explain it in his Ztschr. XXV 327.

Armenian. See above. Perhaps also *p'uḫ* 'breath, flatus' beside *ḫčem* 'I breathe, blow', cp. Gr. *φύσκα* 'blister, weal' *φύσκη* 'intestine, sausage' beside *φῦσα* 'blowing, blast', $\sqrt{p}hu-$ or *sphu-* (the weak form).

Greek. *δίσχο-ς* 'quoit' for **διχ-σκο-ς*, beside *διχεῖν* 'to throw'. *βο-σκή* 'fodder, pasture', beside *βόσκω* 'I feed'.

Here apparently we must class the diminutives¹⁾ in *-ισκο-* (which do not occur in Homer), as *παῖδισκο-ς* 'little boy' *παιδίσκη* 'little girl', *οἰκίσκος οἰκίσκη* 'little house', *χοιρίσκο-ς* 'little pig', *ύδρίσκη* 'little pitcher'. These may be connected with presents in *-ισκω* (like *εὐρίσκω*), and the (primary) forms on which the rest were modelled (cp. *ἄρεσκο-ς* 'pleasing' beside *ἀρεσκω*) may have arisen when such presents still had the sense of becoming, of gradual realisation, compare *νεανίσκος* with Lat. *adulēscēns*.

Italic. Lat. *ēscā* for **ēd+scā* and its opposite *pōscā*. Also *vescu-s* properly 'eaten away'), beside *vescor*, if this group of

1) Janson, De Graeci sermonis diminutivis in *σκο-ς*, Thörn 1856.

words contains *-sko-* (cp. Osthoff, *Zur Gesch. d. Perf.* 606; Baunack, *Kuhn's Ztschr.* XXVII 561 ff.).

Germanic. O.H.G. *forsca eisca wunsc* Goth. *-malsk-s* see above p. 275. O.H.G. *frosk* O.Icel. *frosk-r* 'frog' for pr. Germ. **frux-ska-*, cp. A.S. *frozga* 'frog'. —

Here must be classed the secondary adjectival suffix, Germ. *-iska-*, Lith. *-iszka-*, Slav. *-isko-*. It denotes origin and connexion, or fitness and quality.

Germ. Goth. *judaivisk-s* 'Jewish', *þiudisk-s* 'íðvirkós' O.H.G. *diutisc* 'German'; O.H.G. *frencisc* 'Frankish', Goth. *mannisk-s* 'human', *gudisk-s* 'divine', *funisk-s* 'fiery', O.H.G. *irdisc* 'earthly', *antarisc* 'strange', *dorfisc* 'belonging to a village, rustic, clownish', *mordisc* 'murderous', *altisc* 'old'.

Lith. *prūsiszka-s* 'Prussian', *lētūviszka-s* 'Lithuanian', *dēviszka-s* 'divine', *tēviszka-s* 'fatherly', *daņgiszka-s* 'heavenly'; substantives are formed from it by *-io-*, e. g. *namiszki-s* m. *namiszkė* f., 'member of a household', *mūsiszki-s* 'one who is ours', *Klaipėdiszki-s* 'inhabitant of Memel', *tēviskė* 'patrimony or father's house, fatherland, home'. O.C.Sl. *ruměskŭ* 'Roman', *židověskŭ* 'Jewish', *kŭnčěžěskŭ* 'princely', *dětěskŭ* 'childish', *nebesěskŭ* 'heavenly'.

The history of this suffix involves considerable difficulty.

Remark. It may be suspected that the Balto-Slavonic suffix was borrowed from Germanic (see I § 587 Rem. 2 p. 442): in Romance indeed *-isco-* (Ital. *grechesco*, *donnesco*) was borrowed from Germanic and Slav. *-arĭ* Lith. *-oriu-s* came from Germ. *-arja-*. It is quite possible that it is a compound suffix *-is + ka-* (compare § 86) (cp. Skr. *arētās-ka-* *mastiška-*); and if so it would be a question whether O.H.G. *altisc* and other forms derived from adjectives did not contain the comparative stem (cp. Skr. *anīyas-kā-* p. 264). Finally it is conceivable that it is an analogical modification of Idg. *-igo-* (§ 87).

§ 91. The Suffix *-go-* *-gā-*. The following forms may be quoted towards proving the existence of a suffix *-go-* in proethnic Indo-Germanic.

Skr. *ár̥bha-ga-s* 'youthful' beside *ár̥bha-s* *ar̥bha-ká-s* 'small, young'. *śṛ̥ga-m* 'horn' may be regarded as derived from a form **śṛ̥ga-* = Goth. *haúrn*, just as O.H.G. *scincha* f. 'hollow

of the thigh, shank': *scina* 'leg-splint', Dan. *manke*: O.H.G. *mana* 'mane' (Kluge, Festgruss an Böhtlingk, 1888, p. 60).

Armen. *krun-k* 'crane': O.H.G. *chranu-h* A.S. *cornu-c* 'crane' beside A.S. *cran* Gr. *γέρανο-ς* 'crane'. Also *srn-kun-ē* (gen. *sruni-ς*) pl. 'shinbones, calves'? Armen. *-k* however also represents Idg. *q*.

In Germanic *-ka-* is a common suffix. With *chranuh* we may compare certain other names of birds, such as Goth. *ahak-s* 'dove' O.H.G. *habuh* A.S. *hafoc* 'hawk', which resemble Greek bird-names in *-γ-*, like *κόρυς*- (see Bugge, Paul-Braune's Beitr. XII 424 f.). In other words it has generally more or less of a diminutival force, as O.H.G. *armihha* 'paupercula', *fulihha* 'she-foal', *snurihha* 'little daughter-in-law', and adjectives like O.H.G. *altih* 'old' O.Sax. *luttic* O.Fries. *litik* 'small' (cp. Skr. *ārbha-ga-s*). By the side of the O.H.G. *scincha* mentioned on p. 276 should no doubt be placed O.H.G. *zinko* 'tooth, prong', which is connected with Mid.H.G. *zint* O.Icel. *tind-r*, ground-form **dend-go-*, from the stem **dent-* 'tooth'.

In Balto-Slavonic also *-go-* is fairly frequent; but this may equally well represent Idg. *-gho-*. Lith. *isz-ei-gà* or *isz-ei-ga* 'exit' beside *isz-eiti* 'to go out', O.C.Sl. *slu-ga* 'servant' from *√kley-* 'hear' (*slu-tije*, *slovo* etc.), *stru-ga* 'current, ship' from *√srey-* 'flow' (*stru-ja*, *o-strovū* etc.). Lith. *melāg-i-s* m. *melāg-ė* f. 'liar', compare *-in-ga-s* in such words as *varginga-s* 'pitiful, miserable' from *vařga-s* 'misery' (and *-in-ka-s* § 68 p. 271). O.C.Sl. *roz-ga* 'twig' beside *rozū razū* 'dis-'. O.C.Sl. *maq-žš* 'man' for *-g-je*, cp. Skr. *mānu-* Goth. *mann-* 'human being, man'. Lith. *ketvėr-g-i-s* adj. 'of four years', *trei-g-ỹ-s* 'of three years' and the like, O.C.Sl. *četrvi-gŭ* Russ. *četver-g* 'Thursday'.

Remark. We must remember that the suffix *-go-* may have been developed from *-go-* in the proethnic period. See I § 469, 7 p. 346. By the side of *-go-* we may perhaps recognise a similar suffix *-gu-* Gr. *πρεϊσ-γυ-ς* *πρεϊσ-βυ-ς* 'old' and in Lith. *žmo-gŭ-s* 'human being'; *πρεϊσ-γυ-ς* would stand beside Lat. *pris-co-* (cp. § 135) as Skr. *ārbha-ga-* beside *arbha-kā-* and as O.H.G. *zinko* beside A.S. *tusc* or *tusk* § 88 p. 266. A different explanation of *-γυ-* *-βυ-* is given by Bezzenger in his Beitr. IV 345.

II. Suffixes in *-i*.

§ 92. In the *i*-suffixes we have a triple Ablaut: *i*, *eĭ*, *oi* (*e*-series, I § 311—314). *i* e. g. in nom. and acc. sing. masc. fem. *-i-s* *-i-m*; *eĭ* e. g. in nom. pl. masc. fem. *-eĭ-es*; *oi* in gen. sing. *-oi-s*. We have not enough evidence to determine exactly the connexion between these grades of Ablaut and the varying conditions of Accent in the original declension.

In the proethnic period the *i*-stems were masculine, feminine and neuter. The first two had originally the same declension. Differences only arose after the separation of the languages, e. g. Skr. acc. pl. *āvīn* m. *āvīṣ* f. 'oves'.

i-stems often pass into the inflexion of the *-ī-*: *-iē-* stems (§ 109), and into that of the monosyllabic *-ī-*: *-iĭ-* stems (§ 109 Remark 2).

§ 93. The Suffix *-i-*. This was always a primary suffix. It is secondary only in nouns originally belonging to other declensions which have been transferred to the inflexion of the *i*-stems. The change of declension is due sometimes to a mere association of similar forms which leaves the meaning unaltered, as in Lat. *nāv-i-s* *nāv-i-um* *nāv-i-bus*¹⁾ (contrast Skr. *nāu-ṣ* *nāv-dm* *nāu-bhyás*); sometimes it denotes a change of meaning, the new signification being taken from that of other *i*-suffixes (as *-ti-* *-ni-*), as in O.C.Sl. *žestoc-ŕ* 'hardness' from *žestokŭ* 'hard'.

-i- as a primary suffix is found in substantives and adjectives. The substantives are most commonly masculine and feminine, and they may be either abstract or concrete.

Indo-Germanic. Substantives.

Masculine and Feminine **ou-i-s* 'sheep': Skr. *āvi-ṣ* m. f. (instead of **āvi-ṣ* on the analogy of the cases which began with *avy-*? see I § 78 p. 69 f.), Gr. *ōi-ς* *ol-ς* m. f., Lat. *ovi-s* m. f., O.H.G. *ou* f., Lith. *avī-s* f. (O.C.Sl. *ovī-ca* § 88 p. 269). Skr. *āh-i-ṣ* m. Avest. *ažiš* m. 'snake, dragon', Armen. *iž* (gen. *iž-i*) 'viper', Lat.

1) For the transference of *-i*-stems into the *i*-declension, see § 109 Rem. 1.

angu-i-s m. f. (O.Ir. *esc-ung* 'eel', a compound with *esc* 'swamp'), Lith. *ang-i-s* f. 'adder'; cp. also Gr. *ἔχις* m. f. 'adder, viper' *ὄφις* m. 'snake, dragon'. Avest. *er'z-i-š* Gr. *ὄφις* m. 'testicle'. **ps-i-s* m. 'sword': Skr. *asī-ś* Lat. *ēnsi-s*. Skr. *-jān-i-ś jān-i-ś* Avest. *jaini-š* f. 'woman', Goth. *qēns* (stem *qēn-i-*) f. 'woman', beside Skr. *gn-ā-* etc., see § 60 p. 111.

Neut. **oqi-* 'eye': Armen. *ač-ē* (gen. *ačaç*) pl., Gr. *ὄσσε* for **ok*-i-e* du. n. (Att. *τοῖ-οτι-ς* must have arisen through a fusion of *ὄττ-* = **oqi-* and *ὄττ-* = **oqi-*), in Gothic in *and-augi-ba* adv. 'coming into sight, openly' (for the *du* cp. I § 444 Rem. 3 p. 331), Lith. *aki-s* f., O.C.Sl. *oči* du.; add Skr. *ákṣi* n. There were a few other proethnic neuters, as O.C.Sl. *uš-i* 'ears' But only a part of the cases were originally taken from these stems, the rest were formed from stems in *-en-* (cp. e. g. Skr. *akṣṇ-ā* (instr.) beside *ákṣ-i* etc., § 114). In several languages, however, the *i*-declension was carried through all the cases and the gender was changed. In others however the *i*-inflection remained defective. Cp. § 114 and Joh. Schmidt, Kuhn's Ztschr. XXVI 16 ff.

There appears to be no one adjectival stem which is found simultaneously in more than one language. Here however we must notice **tr-i-* 'three' (cp. Skr. *ty-tīya-* 'tertius' etc.): Skr. *tráy-as* loc. *tri-śú*, Armen. *ere-ē* instr. *eri-v-ē* (I § 263 p. 214), Gr. *τρεις τρι-σί*, Lat. *trēs tri-bus* O.Ir. *trī* dat. *tri-b*, Goth. *þreis* dat. *þri-m*, Lith. *trys* loc. *tri-sè* O.C.Sl. *trij-e trij-e* loc. *trī-chū*.

Aryan. Substantives.

Masculine and Feminine. The suffix is especially used to form *nomina agentis* (m.) and abstract verbal substantives (far more commonly f. than m.). Skr. *v-i-ś* Avest. *v-i-š* m. 'bird': Lat. *av-i-s* (the loss of the root-syllable in Sanskrit is a trace of the Ablaut of the original declension). Skr. *kav-i-ś* 'sage' Avest. *kav-i-š* m. 'king'. Skr. *gir-i-ś* Avest. *gai-ri-š* m. 'mountain' (should we connect it with *gurú-* 'heavy'?) Skr. *va-ṛ-i-ś* m. 'husk, covering' Avest. *vaoiri-* (cp. I § 160 p. 144) in *us-vaoiri-š* 'shelled, without shell'. Skr. *fṣ-i-ś* m. 'singer, sage', *kṛ-i-ś* m. 'singer of praises', *arc-i-ś* m. 'beam', *dhvan-i-ś* m. 'tone, sound', *nidh-i-ś* m. 'establish-

ment, store, treasure' (*ni-dha-*); *rúc-i-š* f. 'gleam, light', *kṛṣ-i-š* f. 'ploughing', *rōp-i-š* f. 'violent pain', *grd̥h-i-š* f. 'seizure', *nābh-i-š* f. 'middle'. Avest. *vaēiḍ-i-š* m. 'announcer', *vair-i-š* m. 'canal, pond'; *baoid̥-i-š* f. 'smell, perfume' *vaid̥-i-š* 'flowing, stream'.

The dative of the *nomina actionis* is used as an infinitive in Vedic and Avestic, e. g. Ved. *dṛśáyē* 'for seeing', *yudháyē* 'for fighting', Avest. *savayōi* 'to use' (cp. Bartholomae, Kuhn's Ztschr. XXVIII 20).

Neuters. Skr. *ákṣi-* Avest. *aši-* 'eye', see above p. 279. Skr. *ásthi-* 'bone', *dádhi-* 'curds'. Avest. *uši-* 'understanding, thought'.

Adjectives. Skr. *hár-i-š* Avest. *zairi-š* 'golden yellow'. Skr. *śúc-i-š* 'shining, pure', *gṛbh-i-š* 'containing in oneself', *kép-i-š* 'trembling', *máh-i-š* 'great'; often in reduplicated forms, as *cá-kr-i-š* 'making', *dá-dh-i-š* 'bestowing', *tá-tur-i-š* 'overcoming', *ba-bhr-i-š* 'carrying', *da-d-i-š* 'giving', *sā-sah-i-š* 'conquering, victorious'. Avest. *darš-i-š* 'violent, mighty' cp. Skr. *dā-dhṛṣ-i-š* 'courageous, bold', Avest. *da-das-i-š* 'biting'.

We find a class of words transferred to the *i*-declension in order to denote relation of any kind to the original word. In Sanskrit they generally imply origin. The initial syllable has the *vridhhi* strengthening regularly in Sanskrit, and often in Iranian. Skr. *sārath-i-š* 'charioteer' from *sa-rátha-s* 'riding in the same chariot', *pāúrukutsi-š* 'descendant, son of *purukútsa-s*'. Avest. *māzdayasni-š* 'belonging to the worshippers of Mazda', from *mazda-yasna-* 'one who worships Mazda' *vār'prayni-š* 'victorious' from *ver'pra-jan-* 'victor', *dāstayāni-š* 'son of *dāstayāna-*'; O.Pers. *pātišuvāri-š* 'a man from Patishuvar'. It is difficult to say on what model this class of forms was made, cp. Lat. *decemjugi-s* 'and the like' (p. 281). Compare the *vridhhi*-formations in -a- § 60 p. 112 f.

Armenian. *iž* (gen. *iž-i*) 'viper': Skr. *áh-i-š* etc., see p. 278 above. *aic* (gen. *aic-i*) 'goat': Gr. *αἴγ-* in *αἴγ'βορο-s* 'pasturing goats'. From old neuter forms are derived *ač-kē* pl. 'eyes' (see p. 279 above) and *sirt* (gen. *srt-i*) 'heart': Lith. *szird-i-s* 'heart' beside Goth. *hairtō*.

Greek. Here it is not common. Substantives. Masculine and Feminine. *ῥι-ς* m. f., *ἔχ-ι-ς* m. f. *ῥφ-ι-ς* m., see above p. 278 f. *τρόχ-ι-ς* m. 'runner', *στρόφ-ι-ς* 'adroit, sly fellow', *κόρ-ι-ς* m. 'cimec', *ἔρ-ι-ς* f. 'strife': Skr. *ár-i-š* 'enemy'; *πόρ-ι-ς* 'heifer, maiden', *ράχ-ι-ς* f. 'backbone, back', *τρόπ-ι-ς* f. 'ship's keel', *μῆν-ι-ς* f. 'wrath'. There remains one original neuter, *ῶσσε*, see p. 279 above, whilst all the other proethnic neuters of this class were driven out of use by new formations.

The Adjective *τρόφ-ι-ς* 'thick, fat, strong' was no doubt originally a substantive, 'thick, strong appearance'.

Italic. Substantives. Masculine and Feminine. Lat. *ov-i-s* m. f., Umbr. *ovi* acc. 'oves': Skr. *áv-i-š* etc., see p. 279 above. Lat. *av-i-s* f., Umbr. *avif* acc. 'aves': Skr. *v-i-š* 'bird'. Lat. *ax-i-s* m.: Lith. *asz-ì-s* O.C.Sl. *os-ŭ* 'axle'; *torris* m. (*✓ters-*), *orb-i-s* m., *corb-i-s* m. f., *crāt-i-s* f.; *ap-i-s* f., *trud-i-s* f., *scob-i-s* f., *sit-i-s* f., *rāv-i-s* f. Osc. *slagim* 'regionem'.

Neuters. Lat. *mar-e*: O.Ir. *muir* n. O.H.G. *meri* n. (perhaps however the Idg. form is **mā-ri*, cp. Gr. *ῥ-ρι*); *sal-e* (stem *sal-i-*, also m.): Armen. *αλ* (gen. *αλ-ι*) 'salt', Gr. *άλι-* in *άλι-πόρφυρο-ς* 'sea-purple', O.C.Sl. *sol-ŭ* f. 'salt'; *conclāv-e*, *præsaep-e* (also *præsaep-i-s* f.). *aur-i-s* too was originally neut.: Mid.Ir. *au* *ō*, dat. pl. *auib*, O.C.Sl. *us-i* du., Lith. *aus-i-s*.

Adjectives: *rud-i-s*, *jug-i-s*, *dulc-i-s*, *grand-i-s*, *turp-i-s*.

In Latin the *i*-declension was invaded by a large number of words which did not belong to it originally, as *ped-i-bus*, *nāv-i-bu-s* *nāv-i-um* *nāv-i-s*, *juven-i-s*. This is especially note-worthy in adjectives, and particularly in compound words. In these the *-i-* often seems to be merely a sign of their adjectival character. *simili-s* 'like': Gr. *ὁμαλό-ς* 'even', *humi-li-s*: Gr. *χαμαλό-ς* 'low', see § 76 p. 202 f. *in-ermi-s* (also *in-ermu-s*) from *arma* pl., *ex-somni-s* from *somnu-s*, *im-belli-s* from *bellu-m*, *im-berbi-s* (also *im-berbu-s*) from *barba*, *multi-formi-s* from *forma*, *bi-corni-s* from *cornu*. We have examples of a similar transference in other languages; with the change in *inermi-s* etc. compare especially the parallel change in Irish.

The proethnic variation between *-tat-* and *-tati-* (*cīvitat-um*

and *cīvitātī-um*), *nocti-* and *nocti-* and the like must have been an important factor in enlarging the *i*-declension.

Old Irish. *aird* m. or f. 'point at the corner or end': Gr. *ἄρδ-ι-ς* f. 'arrow-point, sting'. *aig* f. 'ice'. *muir* n. 'sea' (Gall. *Mori-tasgu-s*): Lat. *mare* n. O.H.G. *meri* n. (though the Idg. form was perhaps **mā-rī*); *gein* n. 'birth', *guin* n. 'wound', *buaid* n. 'victory'.

air-dirc 'famed' *ē-cndirc* 'absent': cp. Skr. *dr̥ś-t-i-ś* 'a seeing'; *maith* 'good' (Gall. *Mati-donnu-s*), *tais* 'soft, gentle' (Gall. *Taxi-magulu-s*), *tin* 'tender' (Gall. *Teni-genonia*.)

Adjectives, especially compound adjectives, frequently passed over to the *i*-declension; as *ē-nirt* 'strengthless, weak' from *nert* 'strength', *so-choisc* 'docibilis' from *cosc* 'an instructing', *ess-amin* 'fearless' from *omun* 'fear' (cp. Gall. *Ex-obnu-s Ex-omnu-s*). Also substantives, as *samail* 'likeness, picture' and therefore also its derivative *co-smil* 'like'. The same may be seen in Latin (p. 281).

Germanic. Substantives. Masculine and Feminine. The verbal abstract nouns are much more commonly m. than f. Goth. *baúr* A.S. *byre* m. 'son'. Goth. *náu-s* (acc. pl. *nav-i-ns*) m. 'dead man': O.C.Sl. *nav-i* 'mortuus'. O.H.G. *win-i* m. 'friend': Skr. *vasu-vāni-ś* 'desiring riches' *vani-ś* 'desire, longing'. O.Icel. *kon-r* m. 'one who belongs to a family, relative', *elg-r* m. 'elk'. Goth. *balg-s* m. 'leather bottle, skin'. Goth. *hug-s* O.Sax. *hug-i* m. 'thought, spirit' pr. Germ. **χuz-t-s*, Goth. *gum-s* O.Sax. *kum-i* O.H.G. *chum-i* m. 'a coming', Goth. *mun-s* O.Icel. *mun-r* m. 'view', Goth. *slah-s* O.Sax. *sleg-i* m. 'blow' (the difference between the *-h-* and the *-g-* corresponds to the original variation of accent in the different cases of the same declension), O.H.G. *biz* O.Sax. *bit-i* m. 'bite', O.H.G. *fang* A.S. *fenz* O.Icel. *feng-r* m. 'capture'. Goth. *gēn-s* f. 'woman': Skr. *-jāni-ś*. Goth. *vēn-s* f. 'hope' O.H.G. *wān* m. 'faith, hope', unless it is to be analysed as **uē-(e)ni-* and so belongs to § 96 (p. 288). O.H.G. *chur-i* f. 'choice'. O.H.G. *chur-i* f. 'choice'. O.H.G. *wurt* f. O.Icel. *Urð-r* f. 'fate' pr. Germ. **yurd-t-s*. For the treatment of the nominative ending *-i-s* in these forms see I § 660, 1 p. 514, § 661, 2 p. 517. Neut.

O.H.G. *meri* 'sea' (cp. Goth. *mari-sáiv-s*): Lat. *mare* n. O.Ir. *muir* n. (though perhaps the Idg. form was **mā-rī*).

Adjectival *i*-stems were confused with *jo*-stems in pro-ethnic and later Germanic.

Balto-Slavonic. Substantives. Masculines are rare. Lith. *vag-ī-s* 'thief'; O.C.Sl. *nav-ī* 'dead': Goth. *ndu-s* 'dead man' (see above); O.C.Sl. *medv-ēd-ī* 'bear' ('honey-eater'), cp. *jad-ī* f. 'food'; *glad-ī* 'hunger'. The feminine is more frequent. Lith. *asz-ī-s* O.C.Sl. *os-ī* 'axle': Lat. *ax-i-s*. Lith. *pil-ī-s* 'stronghold, castle': cp. Skr. *pur-ī-ś* 'town', though these two words may be independent extensions of an orig. stem **pŕl-*. Lith. *āt-ils-i-s* 'repose, ease', *rūd-ī-s* 'rust'. O.C.Sl. *lŭž-ī* 'lie': O.H.G. *lug* A.S. *lyze* (pr. Germ. **luzi-*) m. 'lie'. O.C.Sl. *věd-ī* 'knowledge': Avest. *vafīd-īš* 'herald'. O.C.Sl. *sīč-ī* 'urine', *o-stež-ī* 'clothing', *chot-ī* 'desire, craving', *bled-ī* 'error, deceit', *rěč-ī* 'speech', *vodo-tečī vodo-točī* 'water-course, channel'. The following imply old neuter forms: O.C.Sl. du. *oči* 'eyes' (cp. Skr. *akṣī*) and *uši* 'ears', Lith. *aki-s* f. and *ausi-s* f., see p. 281.

Adjectives in *-i-* are not found in the historical period of Lithuanian, so that Lith. *dīdi-s* 'large' loc. *dīdi-mė* cannot be classed here. The word was no doubt a substantive originally, like Gr. *τόπος* (see above p. 281). In Slavonic too the adjectives in *-i-* have died out. Possibly however they are represented by indeclinable forms in *-ī*, such as O.C.Sl. *is-plŭnī* beside *plŭnŭ* 'full' *sugubī* beside *sugubŭ* 'doubled', *svobodī* 'free', which Mahlow, (*Die langen Vokale*, p. 121) compares with Lat. *in-ermi-s* O.Ir. *ē-nirt* (p. 281 f.); see however Leskien, *Handbuch*² p. 72 f. 94 f.

In Balto-Slavonic, as in Latin, the forms of the *i*-declension invaded other classes of stems. E. g. dat. pl. Lith. *akmen-ī-ms* O.C.Sl. *kamen-ī-mŭ* (nom. sing. Lith. *ak-mŭ* O.C.Sl. *kamy* 'stone') like Lat. *homin-i-bus*, Lith. *moter-ī-ms* O.C.Sl. *mater-ī-mŭ* (nom. sing. Lith. *môtė* 'woman' O.C.Sl. *mati* 'mother') like Lat. *matr-i-bus*, Lith. *debes-ī-ms* O.C.Sl. *nebes-ī-mŭ* (nom. sing. Lith. *debes-ī-s* m. f. 'cloud' O.C.Sl. *nebo* n. 'heaven') like Lat. *gener-i-bus*. Many words were thus transferred entirely, or almost entirely, to this declension, as Lith. *dant-ī-s* f. 'tooth' (gen. pl. *dant-ū*), *žqs-ī-s*

f. 'goose' (gen. pl. *žas-ŭ*), *debes-i-s*; O.C.Sl. *krŭv-ŭ* f. 'blood' (gen. sing. *krŭv-e*), *kamen-ŭ* beside *kamy*, *vŭs-ŭ* 'village' (Skr. *vīś-*).

In Slavonic *-i-* is a secondary suffix in feminine abstract nouns like *žestocŭ* 'hardness', from *žestokŭ* 'hard', *zelenŭ* 'viriditas', from *zelenŭ* 'viridis', *zŭlŭ* 'wickedness', from *zŭlŭ* 'wicked', *toplŭ* 'warmth', from *toplŭ* 'warm' (cp. § 98). The type for these new formations was set by such pairs of forms as *da-nŭ* 'gift' and *da-nŭ* 'given', *bra-nŭ* 'fight' and *bra-nŭ* 'fought', *pę-tŭ* 'fivefold character', five' and *pę-tŭ* 'fifth'.

§ 94. The Suffixes *-ni-* (*-ŭni-*) and *-eni-* (*-oni-*).¹⁾

The two forms are related in the same way as *-no-* and *-eno-*. Hence we analyse e. g. **dōni-s* (Lith. *dūni-s* O.C.Sl. *danŭ* 'gift') as **dō+eni-*. See § 65 p. 138.

These suffixes appear to have been always primary.

Amongst the substantives formed with *-ni-* *-eni-*, the verbal abstract nouns are a prominent class, widely represented in Aryan, Germanic and Balto-Slavonic. These stand in the same relation to the participial suffixes *-no-* *-eno-* (*-ono-*) as the noun suffix *-ti-*, which also forms verbal abstract nouns (§ 100), to the participial suffix *-to-* (§ 79 p. 218): e. g. Skr. *lū-ni-ś* 'a tearing away': *lū-na-s* 'torn away' = *hū-ti-ś* 'call': *hū-ta-s* 'called'. And it is certainly not an accident that these nouns in *-ni-* are most common in the languages in which the *no-* stems occupy a prominent place among the forms of the infinitive.

In Germanic and Balto-Slavonic we often find *-sni-* instead of *-ni-*. The origin of the *-s-* is not quite clear. Possibly it should be sought in forms like **leuqs-ni-s* 'gleam' (Avest. *raoxšni-š*), cp. *-s-no-* § 66 p. 140 f. With Lith. *deksni-s* 'burnt patch of ground' cp. O.C.Sl. *žestŭ* for **gek-s-to-* p. 79 p. 237.

Remark. Sometimes it is not easy to decide whether in any particular word we have this suffix or an *en-* stem extended by *-i-* (i. e. transferred to the *i-* declension). The latter is certainly the case e. g. in Skr. *śun-i-ś* Avest. *sūn-i-š* Lith. *szun-i-s* Pruss. *sun-i-s* 'dog' beside Skr. *śrū* gen. *śūn-as*,

1) H. Ebel, Die Abstractsuffixe *-ni* und *-ani* (in Gothio), Kuhn's Ztschr. V 302 ff. Losch, Die mit dem Suffix *ni* gebildeten Verbalabstracta im Gotischen, Germania XXXII 223 ff.

Lat. *carn-i-s* beside *carō carn-is*, O.C.Sl. *ďin-ĭ* 'day' *jelen-ĭ* 'stag' beside gen. sing. *ďin-e jelen-e*, *srĭšen-ĭ* beside Lith. *szirszŭ*, gen. *szirszeŭs*, 'hornet, gadfly'. Perhaps also in Skr. *vr̥ṣṇt-ṣ* *vr̥ṣṇi-ṣ* 'male, strong, mighty' *vr̥ṣṇi-ṣ* m. 'ram' Avest. *varšni-š* 'ram' beside Skr. *vr̥ṣān-* 'male', Skr. *pr̥ṇi-ṣ* 'full of love' beside instr. *pr̥ṇ-ā* 'through love, through affection', Gr. *ὄρνις* (pl. *ὄρνεις*) 'fowl' O.H.G. *arn* (pl. *erni*) 'eagle' beside Goth. *ara*, gen. *arins* 'eagle'. Cp. § 65 Rem. p. 139.

§ 95. 1. *-ni-* (*-ṇni-*).

Indo-Germanic. Skr. *ag-nī-ṣ* m. Lat. *ig-ni-s* m. Lith. *ug-nī-s* f. O.C.Sl. *og-nŭ* m. 'fire'; the relation of the different root-vowels is obscure. Skr. *śrō-ni-ṣ* m. f. 'hinder parts, hip', Lat. *clū-ni-s* m. f., O.Icel. *hlau-n* f. 'hip-bone, hinder-part', Lith. *szlau-nī-s* f. 'hip, upper part of the thigh, shaft-bar (of a carriage)'; how is this related to Gr. *κλόν-ς* 'os sacrum'? (cp. the Author, Zum heut. Stand der Sprachwiss. 1885, p. 70 f., Holthausen, Paul-Br. Beitr. XIII 590). **lū-ni-s* f. 'a loosing, tearing loose': Skr. *lū-ni-ṣ* 'a tearing loose, cutting off', Goth. *lū-n-s* 'means of loosing, ransom' (von Bahder, Verbalabstr. 81, Osthoff, Morph. Unt. IV 121). Avest. *rašni-s* 'truth' pr. Ar. **raṣ-niṣ* (I § 403 p. 298), Goth. *ga-rēh-sn-s* f. 'intent, plan', *✓reḡ-* (Avest. *rāzayēiti* 'he arranges'). Skr. *śrēni-* 'light, pure' (in *śrēni-dant-* 'with bright teeth'), Goth. *hrái-n-s* 'pure'; cp. also O.C.Sl. *srě-nŭ* 'white' (Kluge gives a different explanation, Paul-Br. Beitr. VIII 525).

Aryan. Skr. *śrō-ni-ṣ* m. f. Avest. *srāo-ni-š* f. 'hinder parts'. Lat. *clū-ni-s* etc.; see above. Skr. *vāh-ni-ṣ* m. 'beast of draught', *yō-ni-ṣ* m. 'lap, womb', *ghṛ-ni-ṣ* m. 'heat, sun-shine'. Skr. *jūr-nī-ṣ* 'glow', *śṛ-nī-ṣ* *śṛ-ni-ṣ* 'sickle', *mē-nī-ṣ* f. 'offensive weapon, missile', *śrē-ni-ṣ* f. 'row, line', *gīr-ni-ṣ* f. 'a swallowing'. Avest. *raoxš-ni-š* f. 'gleam, brightness', *fšao-ni-š* f. probably 'riches, food, nourishment'.

Adjectives. Skr. *śrēni-* 'bright, pure', see above, *tūr-ni-ṣ* 'hastening', *bhūr-ni-ṣ* 'hasty, fiery', *pṛś-ni-ṣ* 'spotted, variegated', Avest. *raoxš-ni-š* 'gleaming, clear'.

The Aryan suffix *-ani-* may in some words be referred to *-ṇni-*; perhaps in *kṣip-anī-ṣ* f. 'blow' and other words in *-anī-*.

Compare Skr. *-ána-* from *-ynó-* § 66 p. 142, and *-anú-* for *-ynú-* § 106.

Armenian. *srun-k* (gen. *sruni-ç*) pl. 'shinbones, calves', compared with Lat. *crūs*.

Greek. Here the suffix is extremely rare. For *κλόνι-ς* see p. 285. *εὔ-νι-ς* 'bereft, mulcted' is a certain example, cp. Skr. *ū-ná-s* 'deficient in something' Goth. *v-an-s* 'absent, lacking'. But *ῥνι-ς ῥννι-ς* 'ploughshare' (cp. Solmsen, Kuhn's Zeitschr. XXIX 81), *σπάνι-ς* 'rarity, want' and one or two others are very doubtful.

Italic. Lat. *Fōnēs* 'dei silvestres' (Gloss.) beside *Faunus*, Umbr. *fons* (pl. *foner*) 'propitius, favens', cp. *fav-eō*; the word seems to have been originally a substantive, meaning 'favour'. Lat. *īg-ni-s* m.: Skr. *ag-ni-ś* etc. see p. 285. *pēni-s* m. f. for **pes-ni-s* beside Skr. *pás-as* Gr. *πέος* n. 'penis' (I § 570 p. 427). *amni-s* m. f. for **ab-ni-s*, compared with O.Ir. *abann* 'stream' (I § 511 p. 375). *fūni-s* m. f., *fīni-s* m. f., *crīni-s* m. f.

It is not clear how far the Adjectives in *-ni-* were brought into this class of stems merely through a secondary change of declension, cp. § 93 p. 281. *com-moini-s* *com-mūni-s* (Osc. *múiníkad* abl. 'communi' see § 87 p. 261) corresponds to Goth. *ga-máin-s* 'common' pr. Germ. **ga-maīni-z*. *omni-s* for **op-ni-s*, beside *op-s* (cp. Goth. *all-s* § 66 p. 147), *sēg-ni-s*, *lēni-s*, *mūni-s*, *im-māni-s*, *in-clīni-s* and others. It must not be forgotten that the uncompounded words may have been originally substantives.

Old Irish. *táin* 'a harrying, raid' for **tu-ag-ni-* or **tu-ag-ni-*, similarly *imm-ain* 'a driving, riding' (passing into the analogy of the *ī*-stems, see Stokes, Kuhn's Ztschr. XXVIII 290), from *√ag-* 'agere', cp. I § 523 p. 380. *buain* 'harvesting' for **bong-ni-*, beside *bongaim* 'I gather, make harvest'. *cluain* 'meadow, mead'. *-yni-* may be contained in O.Ir. *colinn* (gen. *colno*) f. 'corpus, caro' Mid.Cymr. *celein* Mod.Cymr. *celain celan*, which point to **colani-* (or **colanni-*, cp. § 117 Rem. 3).

Germanic. The Substantives in *-ni-* and *-sni-* are femi-

nine and mostly abstract. O.Icel. *hlau-n* 'hip-bone': Skr. *śrō-ni-ṣ* etc.; see above, p. 285. Goth. *siun-s* 'looking, power of sight, visage, appearance' pr. Germ. **si(ȝ)u-ni-s*, beside Goth. *sathvan* 'to see', \checkmark *seq-*; see I § 441 p. 327 f., § 444 c p. 330. Goth. *anda-viz-n-s* 'sustenance, support' *vátla-viz-n-s* 'welfare, good condition' from *visan*. *sōk-n-s* 'disputed question', *táik-n-s* 'notice, token' \checkmark *deĩk-deĩȝ-*, *dáu-n-s* 'vapour, smell'. Goth. *ana-busn-s* 'bidding, charge, command' for **-butsn-*, beside *ana-biudan*, *us-beisn-s* 'expectation, patience' for **-bítsni-*, beside *us-beidan* (I § 552 p. 404), *ga-rēh-sn-s* 'intent, plan' (cp. Avest. *raš-ni-* p. 285), *rōh-sn-s* 'court, courtyard'.

The adjectival *-ni-* corresponds to the adjectival *-i-* (§ 93 p. 283), and, like *-i-*, was confused with the *īo*-declension. Goth. *hráin-s* O.Sax. *hrēni* 'pure': Skr. *śrēni-* 'bright, pure'; see p. 285 above. Goth. *ga-máin-s* 'common': Lat. *com-moini-s* *com-māni-s*, see p. 286. Goth. *ana-siun-s* 'visible', *skáun-s* 'beautiful' (noticeable, worth looking at' beside O.H.G. *scouwōn*), *ar-ni-ba* adv. 'safely, heedfully'.

In Balto-Slavonic we find only substantives, which in both branches are almost exclusively feminine, often with *s* or (in Slav.) *z* prefixed (*-sn-*, *-zn-*).

Lith. *ug-ni-s* f. O.C.Sl. *og-nŕ* m. (the only masc.) 'fire': Skr. *ag-ni-ṣ* etc., see above p. 285. Lith. *bar-ni-s* f. 'quarrel' O.C.Sl. *bra-nŕ* f. 'battle'. Lith. *kul-ni-s* f. 'heel', *vil-ni-s* f. 'wave', *szak-ni-s* f. 'root', *pus-ni-s* f. 'snow-drift', *krós-ni-s* 'stove, oven', *dek-sn-i-s* f. 'burnt patch of ground' *lup-sn-i-s* (and *lupszn-i-s* f. 'shell peeled off', *žink-sn-i-s* f. 'step'; the forms are frequently transferred to the *īo*-declension (masc.), as *žinksn-i-s* gen. *žinksnio* = *žinksn-i-s*. O.C.Sl. *stri-nŕ* 'stem' *stŕg-nŕ* 'way, road', *po-jas-nŕ* 'girth', *pri-kaz-nŕ* 'tale, history, example', *sē-nŕ* 'shade' (no doubt to be compared with Skr. *chāy-d* 'shade', I § 393 p. 293 f., § 414 Rem. p. 303 f.), *pě-snŕ* 'song', *kŭ-znŕ* 'deceit', *ži-znŕ* 'life'.

§ 96. 2. *-eni-* (*-oni-*).

Indo-Germanic. **bhāni-s*: Armen. *ban* (gen. *bani*) 'λόγος', A.S. *bēn* O.Icel. *bōn bēn* f. 'prayer' pr. Germ. **bōni-z*, O.C.Sl. *basnŕ* f. 'fable, spell' (the *s* is a later insertion). We

may place here, but with more hesitation, Goth. *as-an-s* f. 'harvest, summer' (cp. *asnei-s* O.H.G. *esni* 'day-labourer'), Pruss. *ass-ani-s* 'autumn' O.C.Sl. *jes-enī* f. 'autumn'.

Aryan. Skr. *-áni-* beside *-aní-* (is the latter for *-ṇt-*? see § 95 p. 285 f.). *iṣ-áni-ṣ* f. 'impulse, motive' *śar-áni-ṣ* 'injury, transgression', *aś-áni-ṣ* f. 'missile'. *car-áni-ṣ* 'mobile', *cakṣ-áni-ṣ* 'brightener, illuminator', *rurukṣ-áni-ṣ* 'able or willing to destroy'. Skr. *sarva-jyāni-ṣ* f. 'complete ruin' Avest. *zyāni-ṣ* f. 'harm', Skr. *hāni-ṣ* f. 'abandonment, decrease, loss', *glāni-ṣ* *glāni-ṣ* f. 'relaxation, discouragement'.

Armenian. *ban* 'λόγος: A.S. *bēn* etc., see above.

Italic. Lat. *pāni-s* m., also *pāne* n., beside *pā-bulu-m*.

Germanic. Goth. *as-an-s* f. 'harvest, summer'?, see above. A.S. *bēn* O.Icel. *bon* *binn* f. 'prayer': Armen. *ban* etc., see above. The comparison of Goth. *vēn-s* 'hope' with O.H.G. *wār* (Bremer, Paul-Braune's Beitr. XI 274) is still uncertain; see § 93 p. 282. The suffix was fertile in forming feminine abstracts connected with weak verbs and derived from the present stem; these words end in *-īni-* *-ōni-* *-aini-*, as Goth. *lāisein-s* 'instruction' from *lāisjan* 'to instruct', *laþōn-s* 'invitation' from *laþōn* 'to invite', *þulđin-s* 'patience, endurance' from *þulan* 'to endure'. The form of the suffix was *-eni-* (as opposed to *-ono-* in the infinitive, which appears in *lāisjan* and *þulan*): *lāisain-s* = ground-form **loisei-eni-s*, pr. Germ. *-iġ-ini-*, cp. 3. sing. Goth. *lāiseiþ*, *þulđin-s* = ground-form **tġlġē-eni-s* pr. Germ. *-ēi-ini-*, cp. 3. sing. *þulđiþ*, *laþōn-s* like 3. sing. *laþōþ*; see I § 142 p. 127. These abstract forms were very numerous even in protoethnic Germanic; but the separate Germanic languages differ in the extent to which they made use of the established types. In Gothic the three methods of formation were in full use together: the form in *-ein-s* was the most, that in *-ōn-s* the least common; further examples are *af-lagein-s* 'remission', *ga-hráinein-s* 'purification', *frijōn-s* 'caress, kiss', *þaháin-s* 'silence'. But in High German the only forms which appear are those in *-īni-*, and these are very numerous; but they were phonetically modified by confusion with secondary abstract nouns in *-īn-* (§ 115), as O.H.G. *toufīn* and *toufī*

'baptism' = Goth. *dáuþein-s*, *mendīn mendī* 'joy', *restīn restī* 'rest, repose'.

Balto-Slavonic. Pruss. *ass-ani-s* O.C.Sl. *jes-enī* f. 'autumn'?, see p. 288 above. Words in which the suffix was contracted with the vowel ending of the stem to which it was added, often show an inserted *s* (*z*). Lith. *dūni-s dūsni-s* f. O.C.Sl. *danī* f. 'gift'. O.C.Sl. *basnī* f. 'fable, spell': Armen. *ban* etc., see p. 287 above, *prē-stanī* f. 'omission' from *prē-stati* 'to omit, cease'; *na-dēznī* 'hope' from *dēti* 'ponere'. These nouns are also formed from derivative verbs, and are based upon the stem of the infinitive; as *bojaznī* f. 'fear' (*bojati sę*), *kajaznī* f. 'repentance' (*kajati sę*), *prijaznī prijaznī* f. 'love, friendship' (*priajati prijati*), *bolēznī* f. 'pain, sickness' (*bolēti*). Compare Pruss. *biāsna-n* acc. 'fear' beside *biā-twei* 'to fear', *eb-signāsna-n* acc. 'blessing' beside *be-signāt-s* part. 'blessed'.

§ 97. The Suffix *-mi-*. There are a few original substantives in which *-mi-* is primary, but the suffix never became fertile. Nearly all apparent examples from later periods are obviously nothing but *-mo-* *-mā-* forms which have passed into the *i*-declension.

No general definition can be given of the function of this suffix.

Indo-Germanic. **qg-mi-s* 'worm' (compare Lat. *cur-vo-s*?): Skr. *kṣ-mi-ṣ* m., O.Ir. *cruim* f. Mod.Cymr. *pryf* pr. Kelt. **kyri-mi-*, Lith. *kirmi-s*, gen. *kirmio*, transferred to the *io*-declension (and now obsolete) from which was formed *kir-m-ēlė* (§ 76 p. 212). With the same suffix, and formed in imitation of the word **qg-mi-s*, but from other roots, we have Lat. *ver-mi-s* m. O.H.G. *wur-m* (pl. *wurmi*) m. 'worm' and Gr. *ἐλ-μ-ς* f. 'intestinal worm'. **uḷ-mi-s*: Skr. *ūr-mī-ṣ* m. 'wave', A.S. *wielm wylm* m. 'welling up, wave' pr. Germ. **ual-mi-z* (I § 306 p. 243). Avest. *dā-mi-š* 'creation, creature' (*dāmi-data-* 'gracious to created beings?'), Gr. *ῥι-μ-ς* f. (with secondary formations which have invaded its declension) 'ordinance, right', *ῥdhē* 'set, establish'.

Aryan. Skr. *kṣ-mi-ṣ*, *ūr-mī-ṣ*, Avest. *dā-mi-š*, see above. Skr. *bhū-mi-ṣ* f. (also *bhāmī-*, see § 109 Rem.) Avest. *bū-mi-š* f. O.Pers. *bumi-* f. 'earth'. Skr. *raś-mī-ṣ* m. 'rein, strap', *kūr-mi-*

'action, performance' in *tuvi-kūrmī-š* 'mighty in action', *sūr-mi-š* f. 'light, shining flame'. Avest. *dā-mi-š* (*dā-mi-š*, see I § 200 p. 169) f. 'wisdom, insight', from *dā-* 'know, understand'.

Greek. *ἔλ-μι-ς*, *θέ-μι-ς*, see above. *φῆ-μι-ς* 'speech, talk, report' beside *φί-μη*.

Italic. Lat. *ver-mi-s*, see above. A change from the *o-* to the *i-*declension produced *in-ermi-s*, *sub-limi-s* and the like; see § 93 p. 281 and § 95 p. 286.

Old Irish. *cruim*, see above. *cnāim* m. 'bone' pr. Kelt. **cnā-mi-*, beside Gr. *σνή-μη* 'shinbone', compare Aeol. *σνᾶ-μι-ν* acc. (pl. Hom. *σνήμῃδεσς*) 'greaves'.

Germanic. O.H.G. *wur-m*, A.S. *wiel-m*, see above. By a change from the *o-* to the *i-*declension, Goth. *hái-m-s* f. 'village' beside pl. *hái-mō-s*, *ar-mi-ns* m. acc. pl. 'arms' beside the old *o-*stem O.H.G. *aram* O.Icel. *ar-m-r* (§ 72, 3 p. 171).

O.C.Sl. *sedmī* f. 'the number seven', *osmī* f. 'the number eight' were formed from the ordinals *sedmū*, *osmū* on the analogy of *petī*:*petū* and so forth.

§ 98. The Suffixes *-ri-* (*-rri-*) and *-li-* (*-lli-*)¹.

There are a few original nouns in which these suffixes are primary. *-li-* is very fertile in Italic. A large number of the examples of *-ri-* *-li-* which date from later periods, just as those of *-mi-*, arise simply from the transference of other stems into the *i-*declension.

No general definition can be given of their function.

Idg. *-ri-*. Skr. *ás-ri-š* f. 'the sharp side of a thing, corner, border, cut edge', Gr. *ἄκ-ρι-ς* f. 'point', esp. 'hill-top' *ὄκ-ρι-ς* f. 'point, corner, border', Lat. *oc-ri-s* m. 'hill-top'; compare Gr. *ἄκ-ρο-ς* etc.; see § 74 p. 184. Gr. *ἰδ-ρι-ς* 'knowing', O.Icel. *vít-r* 'wise' (pr. Germ. **vīt-ri-z*), *√**ueid-*. Skr. *vádhi-ri-š* 'gelded, castrated' Gr. *ἔθ-ρι-ς*, the same (cp. G. Meyer, Gr. Gr.² p. 68).

1) C. von Pucker, Die [lat.] nomina derivata auf *-alis* (*-aris*) und *-arius*, Kuhn's Ztschr. XXVII 113 ff.

-li-. Lat. *tali-s quāli-s*, O.C.Sl. *tolī* adv. 'so much, tantum' *kolī* adv. 'how much, quantum', and (derived from *-li-* stems) Gr. *τηλί-κο-ς* *πηλί-κο-ς*, O.H.G. Alemann. *welēr solēr*, O.C.Sl. *tolikū kolikū*; see § 88 p. 265, § 89 p. 272.

Aryan. Only the evidence of the kindred languages can determine whether in any particular word we have Idg. *-ri-* or *-li-*.

-ri-. Skr. *ás-ri-š* see above *jī-rī-š* 'flowing water', beside *jī-rá-s* 'lively, rough': Lat. *vi-reō* O.C.Sl. *ži-rū*, see § 74 p. 182 f. *śubh-rī-š* with the same meaning as *śubh-rá-s* 'gleaming, beautiful': Armen. *surb* 'pure', see § 74 p. 183. *ús-ri-š* with the same meaning as *us-rá-s* 'of the morning' (adj.): Gr. *av̄-ρ-ιο-ν*, see § 74 p. 181.

-li-. Skr. *tū-li-š* f. 'brush', beside *tū-lī* f. 'cotton, wick, brush' *tū-la-m* 'panicle, tuft': Gr. *τύ-λη* *τέ-λη*, see § 76 p. 198. Skr. *dha-li-š* f. 'dust': cp. Lat. *fūligō* 'soot', Lith. *dūlkė* f. 'mote'. Avest. *tiy-ri-š* m. 'arrow, missile' beside *tiy-ra-* 'sharp, pointed': Goth. *stik-l-s*, § 76 pp. 200, 207.

In the following examples it is not clear whether the suffix originally had *r* or *l*. Skr. *bhū-ri-š* 'abundant, great, many', neut. *bhū-ri* Avest. *būiri*. Skr. *ānagh-ri-š* m. 'foot', *vānāk-ri-š* m. f. 'rib'. *āb-hri-š* f. 'hoe, spatula'. Avest. *maoiri-š* m. 'ant' for pr. Ar. **may-ri-š* (I § 160 p. 144), cp. Skr. *vam-rá-s* m. *vam-rī* f. 'ant'. — Skr. *anagú-ri-š* *anagú-li-š* f. 'finger' beside *anaguṣṭha-* Avest. *anagušta-* m. 'toe'. There are also a few adjectives in *-uri-š*, where we can hardly assume either *-rri-* or *-lli-*, as *sáhuri-š* 'mighty', *jásuri-š* 'exhausted, weary'.

Greek. Here it is very rare. *ἄκ-ρι-ς* *ὄκ-ρι-ς*, *ἰδ-ρι-ς*, see above. No doubt we should add *ὕβρι-ς*.

Italic. Lat. *oc-ri-s* m., Umbr. *ukri-per ocri-per* 'pro ocre': Gr. *ὄκ-ρι-ς*, see above. Lat. *ut-ri-s* m., to be compared perhaps with *uteru-s. secūri-s*, cp. *figūra* and similar forms. Lat. *sac-ri-* (e. g. *sacrem porcum*) beside *sac-ro-*, Umbr. *sakre* n. 'sacrum, hostia' beside *sakra* 'sacras'. Lat. *acer acri-s*, beside Gr. *ἄκ-ρο-ς*; Osc. *akrid* 'acri' or 'raptim' might also be referred to a stem *akro-* (cp. *amprufid* 'improbe'). Lat. *put-*

-ri-s. Umbr. *pacrer* pl. 'pacati, propitii', cp. Goth. *fag-r-s* 'suitable' pr. Germ. **faz-rá-s* § 74 p. 187. Cp. *-bri-* beside *-bro-* in *anclabri-s* etc., § 77 p. 215.

In Italic *tali-s quāli-s* (p. 291) served as the types for a large group of adjectives; as Lat. *æquali-s, liberali-s, natali-s, vernali-s, vīтали-s, dotali-s*; Umbr. *verfale* 'verbale, templum', *sorsālem* 'porciliarem', *Tefrali* abl. 'Tefri proprio'; the change of *l* to *r* by dissimilation seems to have taken place in pro-ethnic Italic when there was already an *l* in the word (cp. I § 269 p. 217): Lat. *alari-s, palmari-s, militāri-s, lūnari-s, liminari-s*, Umbr. *staflarem* 'stabularem'. The analogy of *vīta*: *vīтали-s* gave rise in Latin to the forms *fidēli-s* (*fidē-s*), *famēlicu-s* (*famē-s*); *ovīli-s* (*ovi-s*), *hostīli-s* (*hosti-s*), and then further, to *virīli-s* (*vir*), *puerīli-s* (*puer*), *hastīli-s* (*hasta*); *tribūli-s* (*tribu-s*), *īdūli-s* (*īdūs* pl.), whence *pedūli-s* (*pes*). Cp. Gr. *τοῖο-ς ποῖο-ς*: *παντοῖο-ς ἄλλοῖο-ς* § 63 Rem. 2 p. 128 and O.C.Sl. *takū kakū*: *jedinakū drugako* § 89 c, p. 273.

-li- in Latin adjectives frequently arises from the transference of *o*-stems into the *i*-declension, and the group of original forms in *ali-s* (*-ēli-s -īli-s -ūli-s*) may have helped to effect the change. *simili-s*: cp. Gr. *ὁμαλό-ς* (in Celtic also an *i*-stem, O.Ir. *samail*, see below), *humili-s*: cp. Gr. *χαμαλό-ς, pestīli-s* etc., see § 76 p. 202 f. 205. Further *agili-s*: Skr. *ajirā-s, bibili-s, coctili-s* etc., p. 204. Cp. also *stabili-s nōbili-s* etc., § 77 p. 215.

There is one substantive in *-li-*, Lat. *tōlēs* pl. m. 'wen on the neck', for **tons-li-*, from *tens-* 'stretch' (Goth. *at-þinsan* 'to draw towards one', Lith. *tęs-ti* 'to stretch by pulling'); *tōnsillae* 'tonsils' points to an older form **tons-lo-* or **tons-lā-*.

Old-Irish. All the apparent examples of this suffix known to me may have originally been *ro-lo*-stems (cp. § 93 p. 282). *lēir* 'diligent'. *dūil* f. 'creature, element' (beside *dūl*). *biail*, gen. *bēla*, f. 'axe'. *samail* 'likeness, picture' with the adjectives derived from it, as *co-smil* 'similar': cp. Lat. *simili-s*.

In Germanic the suffix is extremely rare, and forms only adjectives, in which as in other *i*-stems, there is a confusion with the *iō*-declension. O.Icel. *vīt-r* 'wise': Gr. *ῖδ-ρι-ς*, see

above p. 290. Goth. *riu-r-s* 'fleeting, perishable' O.Icel. *rȳr-r* 'thin'.

Balto-Slavonic. O.C.Sl. *dřb-ri* f. 'ravine'. Lith. *ang-lis* f. O.C.Sl. *ag-lī* m. 'coal'. O.C.Sl. *by-lī* f. 'plant, vegetable' beside part. *by-lū*, *reḃ-lī* f. 'bud, shoot', *sop-lī* (beside *sopēlī*) f. 'flute', *sūch-lī* f. 'dry wood, brushwood' beside *u-sūch-lū* 'dry' (cp. I § 588 Rem. 2 p. 444), *tek-lī* f. 'resin', properly 'outflow', beside part. *tek-lū*. In *-ē-li-* (cp. *-ē-lo-* § 76 p. 212 f.): *gybēlī* f. 'destruction', *kapēlī* f. 'bath', *pečalī* f. 'care, grief', *sopēlī* f. 'flute', *svirēlī* f. 'flute', *obitēlī* f. 'dwelling', *obutēlī* f. 'shoe', *dētēlī* f. 'deed'. In *-s-li-* (cp. *-s-lo-* § 76 p. 211): *jasli* pl. f. 'crib' for **ēt-s-li-* beside *jastū* 'he eats', *gasli* pl. f. 'zither' beside *gaḃa* 'I play on the zither', *myslī* f. 'thought' beside Goth. *ga-máud-jan* 'to remind', *otū-raslī* f. 'sprig' beside *rasta* 'I grow'. Some of these forms with *-li-* must no doubt be explained in the same way as *žestoč* (§ 93 p. 278. 284); *toplī* (beside *toplū*) has already been mentioned in that section.

§ 99. The Suffix *-ti-*. In Indo-Germanic this was a common primary suffix, and formed feminine *nomina actionis*. In Aryan, Balto-Slavonic, (and Keltic, cp. § 156) regular infinitives were developed from these abstract verbal nouns; e. g. Skr. *pītáy-ē* O.C.Sl. *pi-ti* 'to drink'.

Here and there we find *nomina agentis* also formed with *-ti-*, and some of these occur in more than one language; as Lat. *hos-tis* Goth. *gas-t-s* O.C.Sl. *gos-tī*, O.Ir. *táid* O.C.Sl. *ta-tī*. All these forms may originally have been *nomina actionis*, the word which denoted a state or capacity being applied to the person in whom it was realised; thus Skr. *cítī-ṣ* f. 'understanding, state of being intelligent' also means in the Rig-Veda 'he who is intelligent'. And even adjectival stems, like Skr. *pā-ti-ṣ*, 'stinking', were developed from these abstract nouns. Cp. § 80 p. 238 f., § 108. 149. 155.

In denominative abstract nouns, *-ti-* is rare; examples are numerals like **penq-ti-s* 'fivefold character'. The *-ti* in Skr. *ká-ti* seems to be connected with this use of the suffix.

§ 100. 1. -ti- in primary abstract nouns (*nomina actionis*).

The root-syllable nearly always has the vowel in its weak grade. The accent is sometimes on the suffix, sometimes on the root, and in Sanskrit and Germanic the same word often shows both, as Skr. *mati-ṣ* and *māti-ṣ*, O.H.G. *gi-burt* (pr. Germ. **burđi-*) and Goth. *ga-baurp-s* (pr. Germ. **búrpi-*). It is therefore probable that originally the accentuation varied in the different cases and corresponded to the different grades of the root; say nom. sing. **mén-ti-s* nom. pl. **mētēi-es*. In the process of levelling, the weak form of the root-syllable generally prevailed, and as the same readjustment happened also in the *to*-participles (§ 79 p. 221), the two are no doubt connected. In the Slavonic infinitive, **mén-ti-* was the type usually followed; which is due to the influence of the supine in *-tū* (§ 108).

These *ti*-stems were extended by the suffix *-en-*, and hence were formed a large class of abstract nouns in Italic and Keltic such as Lat. *men-tiō* beside *mēns*¹⁾, O.Ir. *er-mitiu* 'honour'; these were not unknown even in Germanic and Greek, cp. Goth. *ra-þjō* = Lat. *ra-tiō*, and Gr. *δορίν-η*. Cp. § 115. In Italic and Keltic a large proportion of the *ti*-abstracts were replaced by this newer formation.

These nouns could be derived from any form which served as a verbal stem, not merely from the root (in the strict sense of the word); hence words like Skr. *údi-ti-ṣ* f. 'speech' (beside part. *udi-tá-s*), Lat. *moni-tiō* (beside *moni-tu-s*) and Gr. *ὄρα-αι-ς* f. 'seeing', Lat. *satiās occupātiō*. O.Ir. *saigid* 'a searching', Lith. *sédėti* O.C.Sl. *séděti* 'to sit'.

The addition of *-ti-* to the stem of the thematic present or aorist as in Skr. *romá-ti-ṣ* Gr. *λάξε-αι-ς* was no doubt a secondary developement, although perhaps it may have begun even in the proethnic period; cp. *-e-to-* § 79 p. 218 f.

Indo-Germanic. **sru-ti-s* f. 'a flowing, streaming' from

1) Leo Meyer, Die lateinische Abstractbildung durch das Suffix *tiōn*, Benfey's Orient und Occident II 586 ff.

✓ *srey-*: Skr. *sru-ti-ś* Gr. *ῥύ-σι-ς*. Skr. *júś-ti-ś* f. 'mark of affection, favour', Gr. *γεῦσι-ς* f. 'tasting, taste' (a later formation from *γεύω* for **γεύσω*), Goth. *ga-kust-s* f. 'trial, testing', ✓ *geys-*. Skr. *údhi-ś* f. 'a leading, carrying', Lat. *vecti-s* m. 'lifter, lever' *vectiō*, inf. Lith. *vėszi* O.C.Sl. *vesti* 'to carry, vehere'. **qi-ti-s* f., from ✓ *qeǵ-*: Skr. *ápa-citi-ś* 'requital, punishment', Gr. *τι-σι-ς* 'estimate, atonement, punishment' *ἀπό-τισι-ς* 'requital, punishment'. Avest. *vae-ti-ś* f. 'willow twig', Lat. *vī-ti-s* f., O.Ir. *fēith* f. 'sinew', Lith. *vý-ti-s* f. 'twig of willow-tree' O.C.Sl. *vi-tŭ* f. 'rēs torta in modum funis' *pa-vi-tŭ* f. no doubt = 'vitis', inf. Lith. *vý-ti* O.C.Sl. *vi-ti* 'to wind, turn'. Skr. *vitti-ś* 'consciousness, the finding, becoming possessed of a thing'. Avest. *e-visti-ś* f. 'ignorance', Lat. *vīsiō* f., O.C.Sl. *za-vistŭ* f. 'envy, hatred' *věstŭ* f. 'news', ✓ *ueǵd-* 'videre'. **bhy-ti-s* f. from ✓ *bher-* 'ferre': Skr. *bhytŭ-ś* 'carrying, sustenance, support', Lat. *fors*, O.Ir. *brith* inf. 'to carry, carrying', Goth. *ga-bairþ-s* O.H.G. *gi-burt* 'birth'. **dhys-ti-s* 'boldness' from ✓ *dher-* 'be bold': Skr. *dhŷṣti-ś* O.H.G. *ga-turst*. Gr. *ἄμλξι-ς* f. 'milking', Lith. inf. *milsz-ti* 'to milk', ✓ *melg-*. **gny-ti-s* f. from ✓ *gem-* 'go, come': Skr. *gāti-ś* (older **gati-*, cp. I § 230 p. 196). 'gait, going', Gr. *πάσι-ς* (older **pari-*, cp. I § 235 p. 198 f.) 'gait, step', Lat. *in-ventiō*, Goth. *ga-qumþ-s* 'a meeting' O.H.G. *cumft cunft* 'a coming' and O.Icel. *sam-kund* 'meeting' (the difference is due to the variation of accent in proethnic Germanic), Lith. *pri-gimtŭ-s* 'innate peculiarity' (cp. I § 249 p. 204). Skr. *ma-ti-ś* *má-ti-ś* f. 'thought, mind', Gr. *μάν-τι-ς* m. 'one inspired, seer', Lat. *mēns men-tiō*, O.Ir. *er-mitiu* 'honour', Goth. *ga-mund-s* f. 'remembrance' *ana-mind-s* f. 'guess', Lith. *at-mintŭ-s* f. 'memory' O.C.Sl. *pa-metŭ* f. 'remembrance', ✓ *men-* 'reflect'. **gny-ti-s* **gñ-ti-s* **gen-ti-s* from ✓ *gen-* 'gignere': Skr. *jāti-ś* f. 'birth' Avest. *fra-zainti-ś* f. 'progeny, children', Lat. *gēns natiō* (cp. *gnātu-s nātu-s*: Skr. *jātá-s*). **kys-ti-* from ✓ *kens-*: Skr. *śásti-ś* 'praise, glory', Lat. *cēnsiō* (instead of **cens-tiō*, cp. *cēnsu-s* § 79 p. 223. 230). **peq-ti-s* f. from ✓ *peq-* 'cook': Skr. *paktŭ-ś* 'cooked dish', Gr. *πέψι-ς* 'cooking', Lat. *coctiō* for **cyec-tiō*, O.C.Sl. *peštŭ* 'fireplace' *pešti* inf. 'to cook'. **-d + ti* **dǵ-ti* **dō-ti* f. from ✓ *dō-* 'give': Skr. *bhága-tti-ś* 'gift

of fortune' *dāti-š* 'riches, possessions' *dāti-vāra-s* 'loving to give, generous', Gr. δόσι-ς δῶσι-ς 'gift', Lat. *datiō dōs* (gen. *dōtis*), Lith. *dāti-s* O.C.Sl. *doti* 'gift'; inf. Lith. *dū'ti* O.C.Sl. *dati* 'to give'. **dhā-ti-* **dhē-ti-* f. from √ *dhē* 'ponere': Skr. *dēvā-hiti-š* 'divine law, ordinance', Avest. *ni-dāiti-š* f. 'laying aside, drawing off' (of clothes), Gr. θέσι-ς 'setting, arranging, position', Lat. *con-ditiō*, Goth. *ga-dēp-s* (st. *-dēdi-*) O.H.G. *tāt* 'deed', O.C.Sl. *blago-dēti* 'benefit, favour'; inf. Lith. *dēti* O.C.Sl. *dēti* 'ponere'. Skr. *āp-ti-š* 'reaching, attaining', Lat. *ad-eptiō* for **-ap-tiō*. Skr. *syū-ti-š* f. 'a sewing, bag', inf. Lith. *šiū-ti* O.C.Sl. *ši-ti* 'to sew'. **plē-ti-s* f. 'filling' from *plē* 'fill': Skr. *prā-ti-š*, Gr. πλῆσι-ς (late), Lat. *ex-plētiō*. Skr. *prā-jñā-ti-š* f. 'recognising' *jñā-ti-š* m. 'kinsman', Gr. γνῶσι-ς f. 'knowledge', Lat. *nō-tiō*, O.H.G. *ur-chnat* f. 'agnitio' (ground-form **gnē-ti-*), O.C.Sl. *po-znatī* f. 'cognitio'; cp. Av. *ā-zainti-š* f. 'knowledge, understanding', Goth. *ga-kunþ-s* f. 'acquaintance' (abstr.) *ga-kund-s* f. 'a making acquainted, persuasion' O.H.G. *kunst* f. 'wisdom, mental capacity', O.C.Sl. *zē-ti* m. 'son-in-law' (cp. Lith. *žēnta-s* 'son-in-law', Gr. γνῶτός 'near relative').

Examples of *-e-ti-* are given under the separate languages.

In Aryan *-ti-* is a living suffix. Skr. *śrū-ti-š* f. 'hearing, sound, news, tale' Avest. *fra-srūiti-š* 'recitation, declamation': O.C.Sl. inf. *slu-ti* 'to be called, nominari' √ *kley-*. Skr. *sōma-suti-š* f. 'pressing of the soma' *sū-ti-š* Avest. *hūiti-š* 'pressing, preparation (of the soma)'. Skr. *buddhi-š* f. 'insight, observation, understanding' Avest. *paiti-busti-š* f. 'observing': Gr. πύσι-ς f. 'inquiry, news', √ *bheydh-*. Skr. *i-ti-š* f. 'going' Avest. *paititi-š* f., i. e. *paitīti-š*, 'a running against, regret': Lat. *i-tiō*, Lith. *pri-eiti-s* f. 'suburb', √ *ei-* 'ire'. Skr. *kṣi-ti-š* Avest. *ṣi-ti-š* f. 'dwelling, settlement' Gr. κτίσι-ς f. 'founding of a colony'. Skr. *diṣ-ṭi-š* f. 'direction, dictate' Avest. *ā-diṣ-ti-š* f. 'direction, instruction': Gr. δεῖσι-ς f. 'showing', Lat. *dic-tiō*, O.H.G. *in-ziht* f. 'accusation'. Skr. *bhṛ-ti-š* f. 'carrying, sustenance, provision' Avest. *ber-ti-š* f. 'offering, fostering care': Lat. *for-s* etc., see above p. 295. Skr. *dṛṣ-ṭi-š* *dṛṣ-ṭi-š* Avest. *darṣ-ti-š* f. 'seeing': Gr. δέξι-ς f. 'seeing', √ *derk-*. Skr. *apa-sṛpti-š* f. 'going out, de-

pasture': Gr. *ἐρψι-* f. 'creeping'. Skr. *gá-ti-ṣ* f. 'a going' Avest. *aiwi-gaiti-ṣ* f. 'arrival': Gr. *βᾶ-σι-* etc., √ *gem-*, see above p. 295. Skr. *rá-ti-ṣ* *rán-ti-ṣ* f. 'a pleasant tarrying, pleasure, delight': Gr. *ἐρασί-μολπο-* 'taking pleasure in song', Lith. inf. *rīm-ti* 'to be calm in spirit', √ *rem-*. Skr. *ha-ti-ṣ* f. 'blow, killing' *á-hati-ṣ* *á-hanti-ṣ* f. 'inviolability' Avest. *jaiti-ṣ* *jainti-ṣ* f. 'striking, killing': Lith. *ap-ginti-s* f. 'vindication' inf. *giñ-ti* 'to drive (cattle)' O.C.Sl. inf. *žę-ti* 'to hew, mow', √ *ghen-*. Skr. *śas-ti-ṣ* f. 'praise, glory' Avest. *sas-ti-ṣ* f. 'instruction': Lat. *cēnsiō*, see above p. 295. Skr. *ni-ṣatti-ṣ* rest, inactivity': Lat. *sessiō* Lith. *sės-ti* O.C.Sl. *sěsti* 'to sit', √ *sed-* 'sit'. Avest. *ava-spašti-ṣ* f. 'espying': Gr. *σκέψι-* 'inspection, examination' (instead of **σπεξι-*), Lat. *īn-spectiō*. Skr. *sthi-ti-ṣ* f. Avest. *stāiti-ṣ* f. 'standing': Gr. *στά-σι-* 'position, place, uprising', Lat. *sta-tiō*, O.H.G. *sta-t* (pl. *steti*) f. 'place, stead', O.C.Sl. *po-staŕi* f. 'pars, modus' inf. Lith. *stó-ti* 'to tread' O.C.Sl. *sta-ti* 'to place oneself'; a form *-*st-ti-*, to be compared with Skr. *-tti-* 'gift' (p. 295 f.), may be concealed in Germ. **fir-sti*- 'roof-ridge' (cp. § 4 p. 9), which would then be parallel to Skr. *savyē-ṣthar-* i. e. *-st+tar-* (§ 122). Skr. *mi-ti-ṣ* f. 'measure, worth, right judgement': A.S. *mæ-ð* f. 'measure, relation', √ *mē-*. Skr. *bhak-ti-ṣ* Avest. *bax-ti-ṣ* f. 'distribution', √ *bhag-*. Skr. *iṣ-ṭi-ṣ* Avest. *iṣ-ti-ṣ* *iṣ-ti-ṣ* f. 'wish', √ *aṣ-*. Skr. *iṣ-ti-ṣ* f. 'offering', √ *iaḡ-*. Skr. *ghrā-ti-ṣ* f. 'odour, smell' beside partic. *ghrā-tá-s*. Avest. *šyēiti-ṣ* (gen. *šatōiš*) f. 'well-being, place of delight, home' O.Pers. *šiya-ti-ṣ* f. 'place of delight, dwelling-place' pr. Ar. **cyā-ti-*: Lat. *quiēs*, gen. *quiētis*, Idg. *qiē-* 'be at ease'. Avest. *jyāiti-ṣ* f. 'life': cp. Gr. *ζῆ* 'he lives'. Avest. *upa-snāiti-ṣ* f. 'a washing', beside Skr. *snā-ta-s* 'washed'. We may add a few more examples of the variation of the accent in Sanskrit (there are more words with the accent on the root-syllable in classical Sanskrit than in Veda): *tṣp-ti-* *tṣp-ti-*, *kīr-ti-* *kīr-ti-*, *bhū-ti-* *bhū-ti-*, *hē-ti-* *hē-ti-*. Masculine and Adjectival forms are rare; besides those given under Indo-Germanic cp. Skr. *dhū-ti-ṣ* m. 'shaker' (f. 'shaking', Gr. *θῦ-σι-* f. 'raging, roaring'), *vāṣ-ṭi-ṣ* 'desirous', Avest. *rāi-ti-ṣ* m. 'distributor' (f. 'distribution, alms', Skr. *rā-ti-ṣ* 'alms, gift').

With reduplication we have e. g. Skr. *car-ky-ti-ṣ* f. 'laudatory mention, praise', *dī-dhi-ti-ṣ* f. 'devotion', Avest. *za-zāiti-ṣ* f. 'throwing away'. Cp. the Greek forms p. 299.

Sometimes we have *-e-ti-*, e. g. Skr. *vas-a-ti-ṣ* f. 'nest', *drś-a-ti-ṣ* 'aspect', *ram-ā-ti-ṣ* f. 'place of pleasant sojourn' *rām-a-ti-ṣ* 'gladly tarrying', *ar-a-ti-ṣ* m. 'servant', *vṛk-ā-ti-ṣ* m. 'destroyer, robber', Avest. *pav-aīti-ṣ* f. 'rottenness, filth'. Cp. Skr. *dars-a-tā-s* and the like § 79 p. 226.

In Aryan the dative of the *-ti-* abstracts served as an infinitive, e. g. Ved. *pī-tāyē* 'to drink' Av. *ker^e-tēē* 'to fulfil' (cp. Bartholomae, Kuhn's Ztschr. XXVIII 20 f.).

Armenian. *z-gest*, gen. *z-gesti*, 'garment': Lat. *ves-ti-s*. *sas-t*, gen. *sasti*, 'abuse, reproach, threat, anger, sternness': Skr. *śaṣ-ṭl-ṣ* *śiṣ-ti-ṣ* f. 'punishment'.

In Greek it is a living suffix, especially fertile in forming *nomina actionis* from derived verbs. *χύ-σι-ς* 'outpouring, gush, libation': Skr. *ā-hutiṣ* f. 'the offering of oblations' *λύ-σι-ς* f. 'a loosing' beside *λυ-ρό-ς*. *φύξι-ς* f. 'flight': Lith. inf. *būkti* 'to be cast into fear', *φθί-σι-ς* f. 'a waning, wasting': Skr. *kṣī-ti-ṣ* f. 'destruction'. *πίσι-ς* f. 'trust' beside *πιστό-ς* *πείδω-ω*. *δάσ-σι-ς* f. 'flaying': Skr. *dṛ-ti-ṣ* f. 'leather skin or bag', Goth. *ga-taurp-s* (stem *ga-taurpi-*) f. 'destruction', Lith. inf. *dir-ti* 'to skin' ground-form **dṛ-ti*, *✓der-* 'tear'. *βρώσι-ς* f. 'food': Lith. *gir-ti-s* f. 'drink, feast', ground-form **gṛ-ti-* **gr-ti-* *✓ger-*. *μάσπ-τι-ς* m. 'seizer, robber'. *τέριψι-ς* f. 'contenting, delight': Skr. *tṛp-ti-ṣ* *tṛp-ti-ṣ* f. 'satiating, contenting', Goth. *þaurf-t-s* O.H.G. *durft* f. 'requisite, want'. *πά-σι-ς* f. 'gait, step': Skr. *gā-ti-ṣ* etc., see above p. 295. *τά-σι-ς* 'stretching, straining': Skr. *ta-ti-ṣ* *tān-ti-ṣ* f. 'row', Lat. *in-tentiō*. *μάν-τι-ς* m. 'one inspired, seer': Skr. *ma-ti-ṣ* etc., see p. 295 above. *ἔξι-ς* f. 'condition, state', beside *ἀν-εστό-ς* *ἔχ-ω*. *ἄν-τι-σι-ς* f. 'a slackening, loosing' *σύν-τι-σι-ς* f. 'understanding' *ἡσίοδο-ς*, *ἀν-ησι-διωρο-ς* 'sending forth gifts, letting grow' (of the earth), Lat. *sa-tiō*, Goth. *mana-sēp-s* (st. *-sēdi-*) f. 'seed of men, multitude, world' O.H.G. *sā-t* f. 'seed', Lith. inf. *sē-ti* 'to sow', *✓sē-* 'throw forth, sow'. *δί-σι-ς* f. 'binding, knot': Skr. *ā-dīti-ṣ* 'boundlessness, state of being unconfined', *✓dē-* 'bind'. *ψά-τι-ς*

f. 'story, news' *φά-σι-ς* f. 'assertion': Skr. *bhā-ti-ṣ* f. 'gleam', √ *bhā*- 'shine, cause to appear, show'. *καῦ-σι-ς* f. 'burning', from *καίω* *καύ-σω*. *πῆξι-ς* f. 'fixing, setting in': Lat. *pac-tiō*, √ *pak-* *pāḡ*-*ῥψι-ς* f. 'sight, countenance'. *ἄμ-πτω-σι-ς* f. 'ebb': Lat. *pō-tiō*, cp. also Skr. *pī-ti-ṣ* f. 'drinking' O.C.Sl. *pī-ti* 'to drink', √ *pō(i)-*. *ἄη-σι-ς* f. 'blowing'. *νῆ-σι-ς* f. 'spinning': O.H.G. *na-t* f. 'seam'. *ῥῆ-σι-ς* f. 'speaking, word' for **φρη-σι-ς*: Avest. *urvāiti-ṣ* f. 'law' (cp. I § 157 p. 141). From derivative verbs: *ὄρασι-ς* 'seeing' (*ὁράω*), *αἰτησι-ς* 'prayer, demand', (*αἰτέω*), *ἀξιόσι-ς* 'thinking worthy' (*ἀξιόω*), *καθαροσι-ς* 'purifying' (*καθαίρω*), *ὑφανσι-ς* 'weaving' (*ὑφαίνω*), *κηρύξι-ς* 'proclamation, announcing' (*κηρύσσω*).

With reduplication: e. g. *ποιφύξι-ς* 'a snorting' from *ποι-φύσσω*. Cp. the Aryan forms p. 298.

With *-e-ti-* we have e. g. *σχέ-σι-ς* 'holding, condition', *λάχ-ε-σι-ς* 'lot, fate', *εῖρ-ε-σι-ς* 'finding'. Cp. also *ἄ-νυ-σι-ς* 'completing'. In correspondence with these nouns we find the partcc. *ἄσχετο-ς*, *εὐρε-τό-ς*, *ἀν-ήνυ-το-ς* § 79 p. 229.

-ti- was so widely used in Greek and formed so many new words that it is often impossible to tell whether a given word arose in Greek or is really Indo-Germanic. It is not probable that forms like *φενῖ-ς* *ῥενῖ-ς* *ζενῖ-ς* Arcad. *ἔσ-τεισι-ς* (beside *φύξι-ς* *ῥύσι-ς* *τίσι-ς*), in which the root-syllable is in the strong grade, are to be referred simply and immediately to the ablaut variation of the stem in Indo-Germanic (see p. 294).

As to the association of the *-ti-*stems in compounds like *τερψι-μβροτο-ς* with the *σ*-aorist, see § 30 p. 52.

In Italic, *-ti-* was no longer a living suffix. But its extension *-tiōn-* (*-tin-*) was very fertile.

a. *-ti-*. Lat. *cu-ti-s* f.: O.H.G. *hū-t* O.Icel. *hū-ð* f. 'skin' pr. Germ. **χū-ðī-*. *tussi-s* f., no doubt to be connected with *tundō*. *fus-ti-s* m. *vī-ti-s* f.: Avest. *vaē-ti-ṣ* etc., see p. 295 above. *fors* f., Osc. *fortis* adv. 'forte' Pelign. *forte* gen. 'fortunaē': Skr. *bhṛ-ti-ṣ* etc., see p. 295 above. *mors* f.: Skr. *mṛ-ti-ṣ* f. 'death', O.Lith. *mir-ti-s* f. O.C.Sl. *sū-mrītī* f. 'death', common ground-form **mṛ-ti-s*. *sors*, also *sor-ti-s* f., beside *serō*. *ars* f.: Skr. *ṛ-ti-ṣ* f. 'method, kind, way'. *pars* f., beside *por-tiō*, see

I § 306 p. 242. *grā-tēs* pl. f., beside *grā-tu-s*. *mēns*, beside *men-tiō*, see p. 295 above. *gēns*, beside *nā-tiō*, see p. 295 above. *messi-s* f., beside *metō*. *res-ti-s* f.: Armen. *z-gest*, gen. *z-gesti*, 'garment'. Umbr. *ahtim-em* 'in actionem' beside *ahtu* 'actui', Lat. *agō*. Lat. *hos-ti-s* m. 'foreigner, enemy': Goth. *gas-t-s* m. 'stranger, guest', O.C.Sl. *gos-tŭ* m. 'guest, companion, friend' (the root meaning is perhaps 'injury, harm', compare Skr. *ghas-* 'to consume'; see the Author, in Curtius' Stud. V. 228 ff.). *nox* f.: Skr. *nák-ti-š* f. Goth. *nah-t-s* f. Lith. *nak-ti-s* f. O.C.Sl. *noš-tŭ* f. 'night'; yet this word **noq-ti-* may not belong to the oldest stratum of *ti-* nouns, but be only an extension of **noq-t-* (§ 123). *cōs*, gen. *cōtis*, f., cp. Skr. *śā-tu-s* 'whetted, sharpened', Gr. *κῶ-vo-ς* 'cone'. *quiēs*, gen. *quiētis*, f.: Avest. *šyčēti-š*, see above, p. 297. From *satiare*: *satiās*, gen. *satiātis*, f. 'sufficiency, repletion'.

forti-s O.Lat. *fortci-s* originally followed the *o*-declension: Skr. *dyḍhá-s* 'established, firm', ✓ *dhergh-*.

b. *-tiōn-*. Lat. *junc-tiō*: Skr. *yuk-ti-š* f. 'a yoking, setting going', Gr. *ζεύξι-ς* f. 'a yoking, putting to', Lith. inf. *junk-ti*. 'to yoke'; the nasal of the Lat. and the Lith. form came from the present stem (Lat. *jungō* Lith. *jūngiu*). *circum-litiō*: Lith. inf. *lě-ti* 'to pour'. *fissiō*: Skr. *bhitti-š* f. 'a breaking'. *por-tiō* beside *pars*, see p. 299 above. *cul-tiō*, from *colō* for **cuelō* (I § 427 a p. 313, § 431 a p. 320). *ēm-p-tiō* (the regular form would have been, **en-tiō*, see I § 207 p. 174): O.Ir. inf. *air-itiu* 'accipere', O.C.Sl. *raċo-jetŭ* f. 'manipulus, sheaf' inf. Lith. *iñ-ti* O.C.Sl. *jě-ti* 'to take'. *men-tiō* beside *mēns*, see above, p. 295. *nā-tiō* *cōg-nā-tiō* Umbr. *natine* 'natione, gente', beside *gēns*, see above p. 295. *of-fensiō*, from *of-fendō*. *coctiō*: Skr. *pak-ti-š* etc., see p. 295 above. *gestiō*, beside *gerō*. *messiō* (cp. *messi-s*) see above. *lec-tiō*: Gr. *λέξι-ς* f. 'speaking, expression'. *sta-tiō*; the stem from which this is derived, **sta-ti-*, may be contained in Umbr. *statita* 'statuta': Skr. *sthī-ti-š* etc., see p. 297 above. *ra-tiō*: Goth. *ra-þjō* f. 'reckoning, account', beside Lat. *rē-rī ra-tu-s*. *ac-tiō* beside Umb. *ahtim-em* 'in actionem'. *cap-tiō*: Goth. *anda-haft-s* f. 'rejoinder, answer' Mid.H.G. *haf-t* f. 'a holding, hold'. *cautiō* Skr. *á-kū-ti-š* f.

'intention'. *auctiō*: Lith. inf. *áuk-ti* 'to grow', √ *aug-*. *scānsiō*, beside *scandō*. *nō-tiō*: Skr. *prá-jñāti-ṣ* etc., see above p. 296. *con-crē-tiō*. From derivative verbs: Lat. *occupatiō dominatiō captatiō* Osc. *medicatinom* 'judicationem' fruktatiuf 'usus, fructus', Lat. *largiō sortitiō, tributiō*. It should be observed however that the great fertility of *-tiōn-* often makes it doubtful whether any given word really represents an original *ti*-stem, e. g. *fissiō auctiō*.

Lat. *monitiō, vomitiō, sorbitiō, ex-spuitiō*. 'Osc. *úittiu* 'usio, usus' for **oit(i)tiuf*, see I § 501 Rem. 2 p. 368, § 633 p. 474. Cp. *monitu-s* and so forth, § 79 p. 231.

Old Irish. *fēith* f. 'sinew': Avest. *vaē-ti-š* etc., see above p. 295. *tāid* m. 'thief': O.C.Sl. *ta-tī* m. 'thief'.

-ti- was a living suffix, and formed abstract verbal nouns which were feminine (for the infinitives see § 156). *buith* 'being': Skr. *bhū-ti-ṣ bhū-ti-ṣ* f. 'good condition, well-being', Gr. *qú-α-ς* f. 'nature', O.C.Sl. *za-bytī* f. 'forgetting, forgetfulness', inf. Lith. *bū-ti* Slav. *by-ti* 'to be'. *brith* 'carrying': Skr. *bhṛ-ti-ṣ* etc., see above p. 295. *blith* 'grinding, molere', beside *melim* 'I grind' (I § 212 p. 179). *cleith* (Mid.Ir.) 'concealment, hiding', beside *celim* 'I conceal'. *saigid* 'seeking out', beside *saigim* 'I seek out', compared with Lat. *sāgiō. iar-figid* 'questioning', cp. Lat. *vocatiō*.

Adjectives in *-ti-*, like *blaith* 'soft, gentle' (ground-form **m[-ti-s]*, I § 306 p. 243), *ē-cm-aill* 'insolens', may have originally belonged to the *o*-declension. Cp. § 93 p. 282.

Some of the feminine abstract substantives in *-tiu* are also used to form infinitives (§ 156). *er-mitiu* 'honour' *toim-tiu* 'meaning, intent': Lat. *mentiō*, see above p. 295. *air-itiu* 'accipere': Lat. *ēemptiō*, see above p. 300. *clōsi(u)* 'hearing': Skr. *śru-ṣ-ti-ṣ* f. 'a gratifying, courtesy', O.Sax. O.Icel. *hlus-t* f. 'hearing', Lith. inf. *klūsiu-ti* 'to ask' (I § 467, 2 p. 343). *epelt(i)u* 'death', sinking', beside *at-bail* 'he dies, perishes'. *aicsiu* 'seeing' from **-cas-tiō*, beside *ad-chess* 'visum est'. *aigthiu* 'fearing', for **-agithiu*. Sometimes we find this extended form side by side

with the shorter form in *-ti-*; e. g. dat. *do saichtin* and *do saighthin* (both Mid.Ir.) = *do saigid* 'to seek out'.

Germanic. In protoethnic Germanic *-ti-* was fertile; but later on it passed almost, if not entirely out of use. This was due to two causes; to the variation caused by phonetic change (cp. e. g. Goth. *anda-hafti-*, *ga-mundi-*, *ga-dēdi-* (pronounced *-dēdi-*), *ga-qumþi-*, *ga-vissi-*), and to the almost complete loss of the *to-* participles, which broke down its formal connexion with the verb.

Goth. *us-taúht-s* ¹⁾ 'completion, fulfilment' O.H.G. *zuh-t* 'drawing, training': Lat. *duc-tiō*, √ *deuk-*. Goth. *fra-lust-s* 'loss, destruction' (compare O.H.G. *lus-t* 'pleasure', perhaps in the sense of 'being free, unrestrained'), beside Goth. *-liusan*: cp. Gr. *λύ-σι-ς*. Goth. *saiuh-t-s* O.H.G. *suh-t* 'illness', beside Goth. *siukan* 'be ill'. Goth. *lis-t-s* O.H.G. *lis-t* 'craft, trick' beside Goth. *leisan* 'to experience, learn': O.C.Sl. *līs-tī* f. 'deceit, trick'. Mid.H.G. *trif-t* 'driving, pasturage, meadow' O.Icel. *drip-t* 'snow drift', beside Goth. *dreiban* 'to drive'. O.H.G. *scur-t* 'shearing': Gr. *κάρ-σι-ς* f. 'shearing', √ *(s)ker-*. Goth. *ga-faúrd-s* 'a meeting, high council' O.H.G. *far-t* 'travelling' ground-form **pr̥-tī-* and **p̥r̥-tī-*, √ *per-*. O.H.G. *ga-turst* A.S. *ge-dyrst* 'boldness': Skr. *dhṛṣ-ṭi-ś* 'boldness', √ *dhers-*. Goth. *fra-vaurht-s* O.Sax. *far-wurht* 'misdeed, sin': Avest. *anvaršti-š* i. e. *anuvāršti-š* f. 'suitable conduct'. O.H.G. *gi-dult* 'patience': Lat. *ob-lātiō* (*-tlāti-* for **tī-ti-*), √ *tel-*. Goth. *ga-qumþ-s* 'meeting' O.H.G. *cumft* *cunft* 'coming' O.Icel. *sam-kund* 'meeting': Skr. *gá-ti-ś* etc., see above, p. 295. Goth. *anda-numt-s* 'taking up, reception' O.H.G. *numft* *nunft* 'taking', beside Goth. *niman*. Goth. *ga-kumþ-s* 'a being acquainted' *ga-kund-s* 'a making acquainted, persuasion', O.H.G. *kunst* 'wisdom': Avest. *ā-zainti-š* f. 'knowledge, understanding', see p. 296 above. As to *ft* and *st* in the last-named forms see I § 214 p. 180 f. and § 529 p. 386. O.H.G. *ana-dāht* 'devotion' for **par̥x-ti-*, beside Goth. *þagkjan* (pret. *þahta*) 'to think'. O.H.G. *sih-t* 'sight, power of sight', beside Goth.

1) The forms which follow are feminine unless it is otherwise stated.

saihvān 'to see': cp. Lith. *sėk-ti* 'to follow'? (cp. I § 419 p. 307). Goth. *fra-gift-s* 'bestowing' O.H.G. *gif-t* 'gift', beside Goth. *giban* 'to give'. Goth. *ga-qiss* 'agreement', beside *ga-qīpan* (pret. *ga-qaþ*). O.H.G. *sta-t* O.Sax. *ste-di* 'place, stead': Skr. *sthi-ti-ṣ* etc., see above p. 297. Goth. *ga-dēþ-s* (st. *-dēdi-*) O.H.G. *tā-t* 'deed': Avest. *ni-dāiti-ṣ* etc., see above, p. 296. Goth. *anda-haft-s* 'rejoinder, answer' Mid.H.G. *haf-t* 'hold': Lat. *cap-tiō*. Goth. *ga-skaft-s* O.H.G. *gi-scaft* 'creation, creature', beside Goth. *ga-skapjan* 'to make'. Goth. *mah-t-s* O.H.G. *mah-t* 'might': O.C.Sl. *mošti* f. 'might' inf. *mošti* 'to be able or capable'. Goth. *gas-t-s* m. O.H.G. *gas-t* m. 'guest': Lat. *hos-ti-s*, see above p. 300. Goth. *slauh-t-s* 'slaughter' O.H.G. *slah-t* 'striking, slaying': Gr. *λάκ-τι-ς* 'pestle for pounding, pounding' (*λακίζω*, Lat. *lacerō*)? Goth. *aiht-t-s* O.H.G. *eh-t* 'property, possession': Av. *iš-ti-ṣ* f. 'goods, riches' (Skr. *iś-*). O.H.G. *ur-chnāt* 'agnitio': Skr. *prá-jñā-ti-ṣ* etc., see p. 296 above. O.H.G. *nā-t* 'seam': Gr. *νή-σι-ς* f. 'spinning'. O.H.G. *hano-crāt* 'cock-crow' (A.S. *crawan* 'to crow'): Lith. inf. *gró-ti* 'to croak'. O.H.G. *bluo-t* 'blooming, bloom', beside Lat. *flō-s*. Mid.H.G. *gruo-t* 'a being green', beside Gr. *χλω-ρό-ς* 'light green, yellow'. The following no doubt come from weak verbs: Goth. *fahēþ-s* (st. *fahēdi-*) 'joy' (see Bremer, Paul-Br. Beitr. XI 32), Goth. *ar-báip-s* (st. *arbáidi-*) O.H.G. *arabeit* 'work, need'.

Now and then we find *-s-ti-* instead of *-ti-*, as Goth. *an-st-s* O.H.G. *an-st* 'favour, grace' (compare O.Icel. *qf-un-d* 'ill-will'), beside O.H.G. *unnan* 'to bestow', O.H.G. *span-st* 'enticement', beside *spanan* 'to entice', Goth. *húif-st-s* A.S. *hæst* beside O.Icel. *heip-t* 'strife', O.H.G. *trust* for **truh-st* beside *truh-t* O.Icel. *drött* 'troop, following'. This *s* came originally from forms like O.Sax. O.Icel. *klu-s-t* 'hearing' = Skr. *śruṣ-ti-ṣ* (p. 301), Mid.H.G. *bluo-s-t* (cp. A.S. *blōstm* and Lat. *flōr-ēre*) beside *bluo-t* 'bloom': in West-Germanic, forms like *kunst* must also have had some influence, if the conjecture given in I § 529 Rem. p. 386 is correct. Cp. *-s-tuō-* § 61, *-s-tro-* § 62, *-s-lo-* § 76, *-s-tu-* § 108, *-s-men-* § 117.

In the Germanic dialects many of these words became

masculine without any change of meaning; this must be distinguished from the change of gender in such words as *gasti* 'guest'. Cp. von Bahder, Verbalstr. 76 f.

Goth. *ra-þiō* 'reckoning, account': Lat. *ra-ti-ō*, see above p. 300.

Balto-Slavonic. Here *-ti-* was very fertile, forming all the infinitives of Lithuanian, Lettic, and Slavonic. And it should be noticed that in this group of languages the phonetic changes which the suffix underwent were very slight (O.C.Sl. *noštī* for pr. Slav. **notχī*, I § 462 p. 338).

Lith. *plu-ti* 'to become flooded, overflow' O.C.Sl. *plu-ti* Russ. *ply-t* 'to flow, swim': Skr. *plu-ti-ṣ* f. 'overflowing, flood', Gr. *πλύ-σι-ς* f. 'washing', √ *pleu-*. Lith. *isz-aūti* O.C.Sl. *iz-uti* 'to uncover the feet': Lat. *ex-ūtiō* (late). Lith. *jáu-ti* 'aquam fervidam super infundere' Lett. *jáu-t* 'to make dough, mix' *jā-tis* pl. 'joint where two bones are connected': Skr. *yu-ti-ṣ* f. 'meeting together' *yū-ti-ṣ* f. 'bond' Avest. *gao-jaoti-š* f. 'meadow-land, cattle-pasture'. Lith. *mūk-ti* 'to slip away' *maūk-ti* 'to graze': Skr. *mūk-ti-ṣ* f. 'loosing, freeing, giving up', Gr. *ἀπό-μυξι-ς* f. 'blowing the nose', Lat. *ē-mūnctiō* (the nasal comes from the present). Lith. *pri-eiti-s* f. 'suburb' inf. *eī-ti* O.C.Sl. *i-ti* 'to go': Skr. *i-ti-ṣ* f., etc., see p. 296 above. Lith. *szli-ti-s* f. 'heap of sheaves' inf. *szlė-ti* 'to make one thing lean on another': Gr. *κλί-σι-ς* f. 'bending, inclining, lying', √ *klei-*. O.C.Sl. *ži-ti* f. 'life' inf. *ži-ti* 'to live' Lith. *gy-ti* 'to revive, get well': Avest. *jī-ti-š* f. 'life'. Lith. *ny-ti-s* f. 'weaver's instrument, slaie': Skr. *nī-ti-ṣ* f. 'leading, guiding'. Lith. *li-k-ti* 'to leave': Gr. *ἐκ-λειψι-ς* f. 'ceasing, failing', Lat. *re-lictiō*. O.C.Sl. *čis-ti* 'honour' inf. *čisti* Russ. *čest* (i. e. **čisti*) 'to count, reckon, honour': Skr. *cīt-ti-ṣ* f. 'thought, intent, intelligence'. Lith. *dīr-ti* 'to skin' Little-Russ. *derty* (i. e. **dīr-ti*) Slov. *dreti* (i. e. **der-ti*) 'to tear, skin': Skr. *dī-ti-ṣ* etc., see p. 298 above. Lith. *gir-ti-s* f. 'feast' *gér-ti* 'to drink' O.Croat. *po-žrti* Little-Russ. *žerty* (i. e. **žir-ti*) O.C.Sl. *žrėti* (i. e. **žerti*) 'to swallow': Gr. *βρω-σι-ς* f. 'food, victuals' (ground-form **q̃r-ti-s*). Lith. *pir-ti-s* f. 'bath-room' *pēr-ti* 'to bathe' (trans.), pres. *periù*. Lith. *kiřsti* 'to strike sharply, strike

hard': Skr. *kṛtti*-š f. 'hide, skin' (*kart*- 'cut off, loosened'). O.C.Sl. *vr̥sti* f. 'condition, state, situation' Lith. *viṛsti* 'to upset, be upset'. *veṛsti* 'to turn': Skr. *vṛt*-ti-š f. 'rolling, proceeding, conduct', Lat. *in-versiō*. Lith. *pāl*-ti-s f. 'side of bacon' O.C.Sl. *plū*-tī f. 'meat'. Lith. *pāl*-ti 'to pour, shed': Skr. *pūr*-tī-š 'filling, fulfilment', √ *pel*-. Lith. *kil*-tī-s f. 'race, stock' *kél*-ti 'to lift, transport, help forward'. Lith. *milsz*-ti Slov. *molsti* (i. e. **mīls*-ti) O.C.Sl. *mlěsti* (i. e. **mels*-tī) 'to milk': Gr. ἄμειξι-ς f. 'milking', √ *melg*-. Lith. *skūl*ti-s f. 'cloven foot of an ox' (*skēld*-u and *skēldžiu* 'I crash, break myself in two'): cp. Gr. κλάσι-ς f. 'breaking' beside κλαστί-ς κλαδ-αρό-ς (cp. I § 369 p. 280). Lith. *at*-mintī-s f. 'memory' O.C.Sl. *pa*-męti f. 'remembrance' Lith. *miñ*-ti 'to remember': Skr. *ma*-tī-š etc., see p. 295 above. Lith. *liñk*-ti 'to bend' (intr.) *leñk*-ti 'to bend' (trans.) O.C.Sl. *leşti* 'to bend' (trans.), √ *leæg*-. Lith. *blįsti* 'to grow dark' *blęsti* 'to darken' (intr.) (pres. *blendžiū*-s) O.C.Sl. *blęsti* 'to go astray' (pres. *blęd*-a), √ *bhlendh*-. Lith. *ugnā*-dekti-s f. 'piercing cold' *dėk*-ti 'to burn' (trans. and intrans.), O.C.Sl. *žęsti* 'to burn' (trans.), beside pres. *deg*-ū *žęg*-a (pr. Slav. **geg*-a for **deg*-a), √ *dhegh*-. Lith. *ęsti* 'to devour' O.C.Sl. *jasti* 'to eat': Gr. νῆστι-ς 'fasting', Lat. *com-ęstiō* (instead of the regular **-ęsiō*, cp. I § 501, Rem. 2 p. 368), √ *ed*-. Lith. *dā*-ti-s f. O.C.Sl. *da*-tī f. 'gift', Lith. *dū*-ti O.C.Sl. *da*-ti 'to give': Skr. *dāti*- etc., see p. 295. Lith. *spė*-ti 'to have leisure, be quick enough' O.C.Sl. *spė*-ti 'to go forward, have success': Skr. *spha*-ti-š f. 'a making fat, prospering' *sphī*-ti-š f. 'prosperous condition', O.H.G. *spuo*-t f. 'progress, success', √ *spē(i)*-. Lith. *nak*-tī-s f. O.C.Sl. *noštī* f. 'night': Skr. *nāk*-ti-š etc., see p. 300 above. Lith. *prė*-žastī-s f. 'cause', beside *žad*-ū 'I promise'. O.C.Sl. *na*-pastī f. 'danger', beside *pad*a 'I fall'. O.C.Sl. *sč*-tī f. 'cord', Lett. *sī*-t 'to bind', √ *saī*-. Lith. *jó*-ti 'to ride': Avest. *vasē*-yāiti-š f. 'free course, progress after one's desire'. Lith. *žio*-tī-s f. 'cleft, ravine' *-žio*-ti 'to open the mouth wide': Lat. *hiā*-tiō. O.C.Sl. *po*-znať f. 'cognitio' *zna*-ti 'to know': Skr. *prā*-jñati-š f. etc., see p. 296 above. O.C.Sl. *grě*-ti 'to warm', beside pres. *grě*-ja. Infinitives in Baltic and Slavonic were closely connected with the finite verb; hence the action of ana-

logy caused many changes in the grade of the root-vowel. For the phenomena in Slavonic cp. Leskien, *Archiv f. Slav. Phil.* V 497 ff.

In Lithuanian we sometimes find *-s-ti-*, as *ugnā-deksti-s* beside *ugnā-dekti-s* (p. 305), cp. *dek-s-ni-s* § 95 p. 287. *-ti-* stems frequently passed into the analogy of *-ja-* and *-ė-* stems, e. g. *krý-ti-s* gen. *-tės* f. and *krý-ti-s* gen. *-czio* m. 'purse-net, hoop-net', *szli-ti-s* and *szli-tė* f. 'heap of sheaves'.

Infinitives of derivative verbs; Lith. *jėszkó-ti* O.C.Sl. *iska-ti* 'to seek', Lith. *sėdė-ti* O.C.Sl. *sėdē-ti* 'to sit'; Lith. *gany-ti* O.C.Sl. *goni-ti* 'to protect, tend'.

§ 101. 2. *-ti-* is used to form secondary abstract substantives. This use is exactly parallel to that of the participial suffix *-to-* and the abstract nominal suffix *-to-* *-ta-* (which were originally identical); both of these, as we have seen, could be added directly to noun stems in the proethnic and later periods (§ 79 p. 224 f. § 80 p. 238 ff. § 82 p. 249 ff.).

The forms which can be most confidently referred to the proethnic language are a group of abstract nouns connected with the ordinals in *-to-* (§ 81 p. 242 ff.) **penq-ti-s* f. 'fivefold character, the number five, a group of five': Skr. *pañkti-ś*, O.Icel. *fimt*, O.C.Sl. *peŕŕi*; with these should no doubt be compared O.H.G. *fast* f. 'fist' pr. Germ. **funŕsti-z* and O.C.Sl. *peŕŕi* f. 'fist' (*-st-* for *-kst-* as in *těste*, see I § 545 p. 399 f.), common ground-form **paŕq-sti-s*¹⁾. Skr. *śaś-ti-ś* f. 'sixty' ('a six-fold quantity', i. e. of tens), O.C.Sl. *śes-tŕi* f. 'a group of six'. Skr. *nava-ti-ś* 'ninety' ('a nine-fold quantity' i. e. of tens) Avest. *navaiti-š* f. 'a group of nine' and 'ninety', O.Icel. *nīun-d* f. O.C.Sl. *deve-tŕi* f. 'a group of nine'. Skr. *daśa-ti-ś* 'a group of ten' and 'a hundred', O.Icel. *tīun-d* f. 'a group of ten', Lith. *dėszim-ti-s* f. O.C.Sl. *dese-tŕi* f. 'a group of ten'. These numeral forms naturally suggest

1) Cp. **paŕq-* in O.H.G. *funfu* and elsewhere (Kuhn's *Ztschr.* XXVII 193 f., Paul-Braune's *Beitr.* XII 512) and for meaning, Goth. *figgr-s* 'finger', which is doubtless connected with this numeral. — Vol. I § 249 p. 205 should be corrected accordingly.

the conjecture, that we have the same suffix in Skr. *tá-ti* (nom. acc.) 'so many' *ká-ti* (nom. acc.) 'how many?', Lat. *tot toti-dem*, *quot*: these words may have been originally neuter.

Remark. In Greek we find numerals in *-tv-*; in place of such forms as **perq-ti-s* (see § 108). In proethnic Indo-Germanic there were forms in *-t-* parallel to these in *-ti-* (see § 123).

Beside Idg. **iuuy-tā* 'youth' (§ 80 p. 239) there seems to have been a second form **iuuy-ti-s* f. with the same meaning: Skr. *yuvati-ṣ* 'maiden, young woman' (the abstract is used for the concrete, § 155), O.H.G. *jugund* A.S. *ƷeoƷoð* 'youth' (Engl. *youth* both as the period and the person), prehist. Germ. **iuzūnpi-* for **iuuyūnpi-* (Bugge, Paul-Braune's Beitr. XIII 504). Lat. *sēmen-ti-s* f. 'seed, seed-corn, seed time', originally 'the being sown'.

Further it is possible that stems in *-es-ti-* *-os-ti-* (cp. Lat. *sceles-tu-s onus-tu-s* and the like) date from the proethnic period. In the words in which they occur, the termination *-esti-* *-osti-* is used as a simple and indivisible suffix. Skr. *gābhasti-ṣ* f. m. 'a thing separated into different parts, hand, fork, shaft (of a carriage)', *pulasti-ṣ* 'hair of the head, wearing smooth hair', *palasti-ṣ* 'gray with old age' (dubious). Lat. *agresti-s*, orig. 'a belonging to the country, rusticity'? O.H.G. *angust* f. 'anxiety' O.C.Sl. *qzostī* 'strait, narrowing', cp. also Lat. *angustu-s angustiae*. In Lithuanian we have *-esti-s*, which passed over to the *-jo-* declension: *kalbesti-s* f. 'speech', beside *kalbesni-s* m. 'talk' and *kalbesi-s* m. 'dialect' *kalbesė* f. 'speech'; *mōkesti-s* m. (gen. *-esczio*), beside *mōkesni-s* m. 'payment'; *lūkesti-s* f. 'awaiting, hope'; *rūpesti-s* f. m. 'care'. In Slavonic there are a large number of feminine abstract nouns in *-ostī* (but *-j-estī*, see I § 84 p. 80) formed from adjectives, and, more rarely, from substantives: besides O.C.Sl. *qzostī* (cp. *qzūkū* 'narrow'), which has been mentioned, other examples are *dlūgostī* 'length' from *dlūgū* 'long', *dobljestī* 'bravery' from *doblī* 'brave', *zvěrostī* 'wildness' from *zvěřī* 'wild animal', *boljestī* 'illness' from *bolī* 'one who is ill'.

Other forms are more isolated, e. g. Skr. *addhā-ti-ṣ* (concrete) 'one who has learnt the truth, sage' beside *addhā* 'in

truth', Goth. *gamāin-þ-s* f. 'community' beside *ga-māin-s* 'common, joint' (cp. *gamāin-dāþ-s* § 102 below, and p. 311).

For *-ti-* in *-tāti-* and *-tūti-*, see the following section.

§ 102. The Suffixes *-tāti* (*-tāt-*) and *-tūti-* (*-tūt-*)¹⁾. The former occurs in Aryan, Greek, and Italic; the latter in Italic, Celtic and Germanic. They formed feminine abstract nouns from adjectives and substantives. *-tāti-* appears to have arisen through the addition of *-ti-* (§ 101) to *-tā-* (§ 80 p. 238 ff.), cp. Skr. *dēvā-tā-* and *dēvā-tāti-*, Skr. *guru-tā-* and Gr. *βαρύ-της*, Lat. *juven-tā-* and *juven-tāti-*. The accumulation of suffixes would be like that in Skr. *-tvā-tā-*, cp. § 56 p. 103 f.; Lat. *juven-tāti-* : *juven-tā-* : Skr. *yuva-ti-* = *puruṣa-tvāta-* : *puruṣa-tva-* : *puruṣā-tā-*. *-tūti-* may have come from *-tu-* stems (§ 108) rather later. The parallel forms *-tāt-* and *-tūt-* beside *-tāti-* and *-tūti-* resemble doublets like Idg. **noq-t-* : **noq-ti-* 'night', **dekṃ-t-* : **dekṃ-ti-* 'ten-fold character', Skr. *sam-i-t-* f. beside *sām-i-ti-* f. (§ 123), and the shorter forms no doubt contain the suffix *-t-*.

Most of the words which occur in more than one language have *-tāt(i)-*: Skr. *sarvā-tāti-ṣ* *sarvā-tāt-* 'perfection'. Avest. *haurva-tāt-* 'safety', Gr. *όλό-της* 'totality, entirety', beside Skr. *sārva-s* Gr. *όλο-ς* 'whole'; Gr. *νεό-της* 'youth', Lat. *novi-tās*, beside Gr. *νεό-ς* Lat. *ново-s*. With *-tūt(i)-*: Lat. *juven-tūs*, O.Ir. *ōitiu* 'youth' (dat. *ōitid*) for **(i)ouētū(s)* (*-iu* for *-u* is due to the palatal character of the preceding syllable). A form with *-tūt(i)-* in one group of languages sometimes corresponds to a form with *-tāt(i)-* in another, as O.Cymr. *duiu-tit* 'deitas': Skr. *dēvā-tāt-*; O.Ir. *beo-thu* 'life': Gr. *βίο-της*; O.Ir. *oen-tu* 'unitas': Lat. *uni-tās*; Goth. *gamāin-dāþ-s*: Lat. *communi-tā-s*. In many words *-tūt(i)* may have ousted *-tāt(i)-*, which on the whole is certainly older.

For the loss of a syllable in forms like Avest. *amer^etāt-* beside *amēr^eta-tāt-* 'immortality'; Gr. *πορῆ-τ* 'drink' for **noro-*

1) Th. Aufrecht, Das Affix *της* *tāt*, Kuhn's Ztschr. I 159 ff. C. Argermann, Das Suffix *της* in Primärbildungen, Curt. Stud. III 122 ff. K. Walter, Das latein. Suffix *-tāt* and *-tūt*, Kuhn's Zeitschr. X, 159. C. von Paucker, Die [lat.] substantive abstracta auf *-tas*, ibid. XXIII 138 ff.

-tār-, Lat. acc. *lūculentatē* beside *lūculenti-tātem*, see I § 643 p. 481 f.

Aryan. In Sanskrit, *-tāti-* and *-tāt-* (the latter is rarer) are only found in Veda, and even there not frequently. In Avestic we have only *-tāt*, where it is comparatively commoner than either form in Sanskrit. Skr. *uparā-tāt-* 'neighbourhood, environs'. Avest. *upara-tāt-* 'superiority', beside Skr. *ūpara-* 'nearer'. Avest. *upara-* 'upper'. Skr. *gṛbhūtā-tāti-ṣ* 'state of being caught' from *gṛbhūtā-s* 'caught', *jyēṣṭhā-tāti-ṣ* 'sovereignty' from *jyēṣṭha-s* 'mightiest', *satyā-tāti-ṣ* and *satyā-tāt-* 'truthfulness' from *satyā-s* 'truthful', *āsta-tāti-ṣ* 'homestead, home' from *āsta-m* 'home', *śā-tāti-ṣ* 'health, bliss' from *śām-* n. 'health, bliss'. Avest. *drva-tāt-* 'durability, soundness' from *drva-* 'durable, sound', *fratema-tāt-* 'sovereignty' from *fratema-* 'first', *hunar-tāt-* 'virtue' for **hunar-ta-tāt-*, compared with Skr. *sūnṛta-s* 'beautiful, glorious', *ušta-tāt-* 'prosperity, welfare' from *ušta-* 'well-being', *yavae-tāt-* 'eternal duration' from *yavē* adv. 'always', dat. of *yu-* n. 'eternity' (cp. *yurāe-ji-* 'ever living').

Remark. From the last word we once find the phrase *yavae-ca tāitē* 'for ever' (usually the word is *yavaetāitē*). Thus *-tāt-* was regarded as a compounded word (this appears also in other ways); and it seems to have been popularly connected with *tan-* 'stretch out'. Cp. Mod.H.G. *brösāme* (O.H.G. *brośma*), which has no etymological connexion with *sāme(n)*, but has been associated with it; furthermore we find even in Greek *παντ-ό-της* like *παντ-ό-μορφος* and Goth. *mikil-dūþ-s* = **mikila-dūþ-s* like *gud-hūs* = **guda-hūs* p. 311.

Greek. Here we find only *-tār-*, which was substituted for the *-tā-* used in forming abstracts (§ 80 p. 239 f.), and appears only in the combinations *-o-tār-* and *-v-tār-*. *ὀρθό-της* 'straight-forwardness, rightness' from *ὀρθός*: Lat. *ardui-tās*. *σκαίό-της* 'awkwardness' from *σκαίός* 'awkward': Lat. *scaevi-tās*. *κακό-της* 'wickedness' from *κακός*. *ἀγνό-της* 'purity, chastity' from *ἀγνός*. *βίο-της* 'life' from *βίος*. *θεό-της* 'godhead' from *θεός*. *ἐν-ό-της* 'unity' from *εἷς* 'one'. *παν-τό-της* 'totality' from *πᾶς*. Hom. *ἀνδ-ο-τῆρ-α* acc. 'manhood' (more correctly no doubt *δρωτῆρ-α*; see I § 204 p. 170) from *ἀνῆρ ἀνδρ-ός*. In the last three examples *-o-* appears as it does in compounds, e. g. *παντ-ό-*

μορφος; cp. also Lat. *libidin-i-tās*. βαρύ-της 'gravitas' from βαρύ-ς; cp. Skr. *guru-tā-* (§ 80 p. 239 f.). γλυκύ-της 'sweetness' from γλυκύ-ς. βραδύ-της (βραδυτής) 'slowness' from βραδύ-ς. ταχυ-τής 'swiftness' from ταχύ-ς.

Italic. In Latin we cannot distinguish *-tāti-* from *-tāt-*, *-tūti-* from *-tūt-*, since in very many points the consonantal declension was assimilated to that of the *i*-stems. It may have been these very suffixes, with their double forms taken along with such doublets as *noct-nocti-* etc., that helped to establish the confusion. The variation in the gen. pl. (*cīvitātium* and *cīvitatum*) is of special importance (§ 93 p. 281).

boni-tās from *bonu-s*. *dūri-tās* from *dāru-s*. *ānxie-tās* from *ānxu-s*. *quali-tās* from *quali-s*. *civit-tas* from *cīvi-s*. *liber-tas* from *liber*. *ūber-tās* from *ūber* (in imitation of which was formed *viduertās* from *viduo-s*; notice the parallelism in meaning). *facul-tās* from *facili-s*, with the later by-form *facili-tās*. *volup-tās* from *volupe volup*. *mājes-tās* from *mājor* (cp. § 135 Rem. 1). *hones-tās* from *honōs*. *tempes-tās* from *tempus*. *vetus-tās* from *vetus*, or for **vetusti-tās* from *vetus-tu-s*. *voluntās* for **volunti-tās* from *volēns*. *libidin-i-tās* from *libīdō*, cp. Gr. ἐν-ό-της (see above). Pelign. *Herentas* 'Venus' Osc. *Herentateis* 'Veneris, Volupiae', from *herest* 'volet', formed from the part. pres., like Lat. *voluntās*.

-tūti- *-tūt-* is very much rarer. Lat. *juven-tūs* (: O.Ir. *ōitiu*), *senec-tūs* beside *juven-tās juven-ta*, *senec-ta*, from *juven-i-s*, *senex*. *virtūs* from *vir*. *servi-tūs* from *servo-s*. There can be no doubt that *-tūdō* (gen. *-tū-din-s*), e. g. in *servi-tūdō alti-tūdō*, is closely related to this suffix.

In Old Irish we have *-tāt-*, which we may ascribe to protoethnic Celtic. *ōitiu* 'youth': Lat. *juven-tās*; see above, p. 308. *oen-tu* 'unitas' for **oen-thu* (*th* (*þ*) after *n* was replaced by the tenuis by a comparatively late change). *beo-thu* (gen. *be-thath*) 'life'. The suffixes *-atu* *-etu*, in derivatives from adjectives in *-e* (*īo*-stems), are especially frequent; as *torbatu* 'utilitas' from *tor-be* 'utilis', *dommetu* 'paupertas' from *domme* 'inops', *oendatu* 'unity' from *oen-de* 'single', *ildatu* 'pluralitas

from *il-de* 'pluralis', *fiuchaidatu* 'humiditas' from *fiuchaide* 'humidus'; the origin of this *-atu -etu* is doubtful¹).

Germanic. It occurs only in Gothic, in certain substantives in *-dūpi-*, derived from adjectives; as *mikil-dūp-s* 'greatness' from *mikil-s* (*mikila-*) 'great', *gamáin-dūp-s* 'community' from *ga-máin-s* (*ga-máini-*) 'common'. The loss of the vowel before the suffix is like that in *ga-máin-p-s* (§ 101 p. 307 f.) and in compounds, e. g. *gud-hūs brūþ-faþ-s* (§ 40 pp. 69, 71 f.).

III. Suffixes in *-u*.

§ 103. The *u*-suffixes have a triple ablaut: *u*, *eu*, *ou* (*e*-series, I § 311—314). *u* e. g. in nom. and acc. sing. masc. fem. *u-s u-m*. *eu* e. g. in nom. pl. masc. fem. *-eu-es*. *ou* in gen. sing. *-ou-s*. The connexion of this ablaut with the original conditions of accent in the different cases cannot be exactly determined from the evidence now at our disposal. No clear explanation has been given of Gr. *ταυα(φ)-ό-ς* compared with *ταυ-ύ-*, Lat. *grav-i-s* compared with Skr. *a-gr-u-*, Skr. *pythiv-ī* compared with *pyth-ú-*, which seem to imply *-eu-* as one of the proethnic forms of the suffix. The best analysis of the words is *ταυα-φό-ς*, *gra-vi-s*, *pythi-vī*, i. e. to suppose that the root-syllable was extended by *ə*, as in *θυγά-τηρ* and the like (I § 110 p. 103 ff.).

From the proethnic period downwards we find *u*-stems in all three genders. The masculine and feminine stems had originally the same inflexion; differences only arose during the development of the separate languages, as in Skr. acc. pl. *sūnūn* m. 'sons', *hánūṣ* f. 'jawbones'.

Remark. For *ū*-stems like Skr. *śvaśrú-ṣ* O.C.Sl. *svetry* Gr. *νῆρ-ς*, see § 109 Rem. 2.

1) "It is hard to decide whether *-atu* came from *-antu*, or from the union of two dental suffixes (perhaps *-ato-tūt-*). Zimmer (Kuhn's Ztschr. XXVII 461) regards the acc. *corpthadid* as a true phonetic spelling (cp. I § 212 Rem. p. 179); yet, as he himself remarks, it may be merely a mistake of the scribe's. Mid.Ir. *sochmattu* 'possibility' perhaps supports *t* rather than *d*. Unfortunately the modern Celtic languages have lost the suffix. Personally I incline towards the second assumption; compare e. g. *no-erladaigtis* 'they obeyed' beside *aurlatu* 'obedience'." Thurneysen.

§ 104. The suffix *-u-*¹⁾. This is always primary, and most common in adjectives. The evidence of Sanskrit, Greek, Germanic and Lithuanian proves that in Indo-Germanic these adjectives were nearly always oxytone and had the root-syllable in the weak grade. But the strong grade must have been at one time regular in a certain number of the cases. It is true that such forms as Skr. *prathú-ṣ* Lith. *plātù-s* beside Skr. *pr̥thú-ṣ*, Skr. *svadú-ṣ* Gr. ῥόδύ-ς O.H.G. *suozī* beside Goth. *sut-s*, cannot be taken to prove this, since a certain amount of assimilation between the forms of the three degrees of comparison (positive, comparative, and superlative) may be assumed in all these cases, and must be assumed in some; but it is fairly shewn by the variation between e. g. Goth. *filu* and Skr. *purú-ṣ*. Notice also the variation of form within the weak grade itself, e. g. **grr-u-* and **-gr-u* 'heavy' (I § 313 p. 250 f.). The feminine of these adjectives was differentiated by *-iž-* *-ī-* in the proethnic and later periods; e. g. Skr. *tanv-ī* beside the masc. *tan-ú-ṣ* (see § 110).

The substantives were masculine, feminine, or neuter. The variations of ablaut differed in different words. Note **gon-u-* **gen-u-* **ġn-u-* 'knee' and the like, and **pek-ú-* and **-pġk-u-* 'cow' (vol. I loc. cit.).

Indo-Germanic. Adjectives. **grr-u-s* **-gr-u-s* (cp. the compar. Skr. *gár-īyas*): Skr. *gurú-ṣ* 'heavy, violent, hard' Avest. *gouru-ṣ* 'adverse' Skr. *a-gru-* Avest. *a-γru-* 'unmarried' (non grávida), Gr. βαρύ-ς 'heavy' (Lat. *gravi-s* see § 103 p. 311), Goth. *kaúru-s* 'heavy' (I § 290 p. 232). **t̥rs-ú-ṣ*, from *✓ters-* 'be dry, arid': Skr. *t̥ṣṣú-ṣ* 'parched with thirst', O.Icel. *þurr* O.H.G. *durr-i* Goth. *þaúrsu-s* (instead of **þaúrzu-s*) 'dry, arid' (cp. I § 582 Rem. 1 p. 435 f.). Skr. *pur-ú-ṣ* Gr. πολ-ύ-ς (cp.

1) O. Weise, De linguarum Indogerm. suffixis primariis, I De adjectivis suffixo *-u-* formatis, Gotting. 1873. A. Bezzenberger, Eine idg. Accentregel, in his Beitr. II 123 ff. R. Thurneysen, Weibliche *u*-Stämme im Irischen, Kuhn's Ztschr. XXVIII 147 ff.; Wh. Stokes, Irish feminine stems in *u*, ibid. 291 f. I. Schmidt, Über das litau. Nominalsuffix *-u*, Kuhn and Schleicher's Beitr. IV 257 ff.

I p. 306 p. 244). O.Ir. *il* Goth. *fil-u* (n.) 'much'), √ *pel-*. Skr. *pr̥th-ú-ṣ* *prath-ú-ṣ* Gr. *πλατ-ύ-ς* 'broad', Gall. *Litu-gena Litu-māra*, Lith. *plat-ù-s* 'broad', beside the compar. Skr. *prāth-īyas-*. **tyñ-ú-s* 'stretched, thin' from √ *ten-* 'stretch out, lengthen': Skr. *tanú-ṣ* (*pari-tatn-ú-ṣ* 'encompassing' redupl.), Gr. *τανύ-γλωσσο-ς* 'with tongue outstretched, long-tongued', Lat. *tenu-i-s*, O.Ir. *tan-a*, O.H.G. *dunn-i*, O.C.Sl. *tīnū-kū* (from which come on the one hand *tīnī-kū*, Czech *tenký*, on the other *tūnū-kū*, Russ. *tonkij*). **lēgh-ú-s* 'quick, small', √ *lēgh-* in Skr. *raḥáya-ti* (I § 454 p. 335): Skr. *raghú-ṣ* Gr. *ἐλαχύ-ς*. **añgh-ú-s* 'narrow', √ *añgh-* 'make narrow, bind together': Skr. *aḥú-ṣ*, Armen. *anju-k ancú-k*, Goth. *aggvu-s* (instead of **aggu-s*, see p. 316), O.C.Sl. *ažū-kū*. Skr. *svād-ú-ṣ* 'sweet, pleasant', Gr. *ῥῑδ-ύ-ς* 'sweet, pleasant', Lat. *suāvi-s* for **suād-ū-i-s*, Goth. *sut-s* O.H.G. *suoz-i* A.S. *swēte* 'sweet'. Skr. *ās-ú-ṣ* 'swift', Gr. *ὠκ-ύ-ς* 'swift', Lat. *acu-pediu-s* beside *oc-ior*.

Substantives. **peḥ-ú-s* **pḥ-u-s* m. and **pēk-u* n. 'cattle': Skr. *paśú-ṣ* Avest. *pusu-ṣ* 'cattle' Avest. *haurva-fšu-* 'all the cattle' (I § 398 p. 296), Lat. *pecu-s*, with its oblique cases reformed by analogy, on the one hand gen. *pecudi-s* etc. (§ 128), on the other (when *pecus* was regarded as neuter) gen. *pecor-is* etc.; Skr. *páśu*, Lat. *pecu*, Goth. *faihu* ('money'). Skr. *hán-u-ṣ* f. 'jawbone', Gr. *γέν-υ-ς* f. 'jaw, jawbone', Lat. *genu-īnu-s* 'belonging to the cheek', O.Ir. *giun* m. 'mouth', Goth. *kinnu-s* f. 'cheek, jawl' instead of **kinu-s* through the influence of *kinn-*, which stands for **kinu-*, cp. I § 469, 8 p. 346 f. Skr. *kēt-ú-ṣ* m. 'phenomenon caused by light, picture, form', Goth. *háid-u-s* m. 'kind, way'. **bhagh-u-s* m.: Skr. *bā-hú-ṣ* 'arm', Gr. *πᾶχυ-ς πῆχυ-ς* 'fore-arm, something bent' O.Icel. *bög-r* 'something bent'. **medh-u* n.: Skr. *mád-hu* 'sweetness, honey' (the Skr. adj. *mádhu-* was derived from this subst.), Gr. *μέθυ* 'intoxicating drink, wine', O.Ir. *mid* (gen. *meda*) O.H.G. *meto* m. 'mead', Lith. *medū-s* m. O.C.Sl. *medŭ* m. 'honey'. **gon-u-* **gen-u-* **gn-u-* n. 'knee': Skr. *jān-u* 'knee' *jñu-bádḥ-* 'bending the knees' Avest. *zanv-a* pl. 'knees' *fra-šnu* 'knee bent forward' (I § 403 p. 298), Gr. *γόνυ*, *γενυῶν* *γονάτων* Hesych. (Cp. I § 639 p. 479), *γυν-πετεῖν* 'to sink

on one's knees, become helpless', Lat. *genu*, Goth. *kniu* (st. *kn-iv-a-*) 'knee' *knu-ssjan* 'to kneel'.

Aryan. Skr. *pur-ú-š* Avest. *pouru- par-ao* O.Pers. *par-u-* 'much' (I § 290 p. 231 f.): Gr. *πολ-ύ-ς* etc.; see p. 312 above. Skr. *ur-ú-š* Avest. *vouru-š* 'broad' common ground-form **ur-ú-* (I § 157 p. 141): Gr. *εἰρύ-ς* 'broad' no doubt for **ε-φρ-* with prothetic *ε*; the relation of the Aryan to the Greek form is therefore the same as that of Skr. *gurú-*: *-gru-*. Skr. *ṛj-ú-š* Avest. *er'z-u-š* 'straight, right'. Skr. *prth-ú-š* Avest. *per'p-u-š* 'broad': Gr. *πλατ-ύ-ς* etc., see above p. 313. Skr. *vás-u-š* Avest. *vanh-u-š* O.Pers. *vahu-* (in the proper name *vahu-ka-*) 'good', the neut. in Skr. and Avest. = 'goods'; the substantival use is perhaps older than the adjectival (cp. Skr. *mádh-* p. 313): O.Ir. *fiu* 'suitable' or 'suitability' (cp. under Old Irish). Skr. *ás-ú-š* Avest. *as-u-š* 'swift': Gr. *ὠκ-ύ-ς* etc., see above p. 313. Skr. *ṛbh-ú-š* 'clever, artistic', *śay-ú-š* 'lying', *dār-ú-š* 'breaking', *jāy-ú-š* 'victorious', *śu-śth-ú-š* 'standing well, in good condition' (*sthā-*), *tāp-u-š* 'hot', *tār-u-š* 'passing through'; *ci-kit-ú-š* 'skilful', *ji-gy-ú-š* 'victorious'; there are many adjectives from desiderative stems, as *di-dṛkṣ-ú-š* 'wishing to see' *ci-kits-ú-š* 'clever, crafty', *di-ts-ú-š* 'ready to give'. Avest. *driy-u-š* 'poor', *ja-yauru-š* 'awake, watchful'.

Skr. *iš-u-š* m. f. Avest. *iš-u-š* m. 'arrow'. Skr. *ás-u-š* m. 'spirit of life' Avest. *añh-u-š* m. 'the world, the sum of living beings', O.Pers. *au-ra-*, § 76 Rem. 1 p. 201. Skr. *bah-ú-š* m. Avest. *bāz-u-š* m. 'arm': Gr. *πῆχ-υ-ς* etc., see above p. 313. Skr. *sīndh-u-š* m. f. 'stream, Indus, region of the Indus', Avest. *hind-u-š* m. O.Pers. *hi(n)d-ā-š* 'India'. Skr. *mādh-u* n. Avest. *mađ-u* n. 'sweetness, honey': Gr. *μέθ-υ-*, etc.; see above, p. 313. Skr. *dār-u* n. 'wood, piece of wood, beam, plug' Avest. *dauru* n. 'wood, spear' Skr. *dar-v-i-š* *dar-v-i* 'spoon' *dr-u-* n. m. 'wood, wooden implements' m. 'tree, branch'. Avest. *dr-u-* n. 'wood, spear': Gr. *δρό-υ* n. 'wood, beam, spear-shaft, spear' *δρῦ-τόμο-ς* 'cutting wood' *δρῦ-α* n. *δρῦ-ες* f. 'oaks', O.Ir. *daur*, gen. *daro dara*, Mod. Cymr. *derw-en* 'oak', O.Ir. *derucc* 'acorn', Goth. *triu* (st. *tr-iv-a-*) n. 'tree', Lith. *der-v-à* f. 'pine-wood' O.C.Sl. *drěvo* n. 'tree' (pr.

Slav. **der-o-o* *dr-ŭv-o* (usually in pl. *dr-ŭv-a*) 'wood', Idg. **dor-u-* **der-u-* **dr-u-*. We have a corresponding variation of ablaut in another neuter word, Skr. *sán-u-* *sn-u-* n. m. 'peak'. Skr. *bándh-u-ṣ* m. 'relationship, relation', *qś-ú-ṣ* m. 'stem', *ci-kit-ú-ṣ* f. 'insight, understanding', *párs-u-ṣ* f. 'rib': Avest. *per's-u-ṣ* m. 'rib', *tdl-u* n. 'palate', *tráp-u* n. 'chin'. Avest. *sēah-u-* *sēahgh-u-* f. 'instruction'.

Armenian. *barj-r*, gen. *barju* 'high', ground-form **bhṛgh-u-*. *anju-k* *ancu-k* 'narrow', (extended by *-go-*, see above p. 313). *bazu-k* 'arm' has the same addition, compare Skr. *bāhú-ṣ* (see above, p. 313), but the word may have been borrowed from Persian. Other derivatives from *u*-stems: *cn-aut* 'jawbone, cheek', beside Skr. *hán-u-ṣ* etc. (see above, p. 313), *cun-r* (pl. *cunk-ē*) 'knee', beside Skr. *ján-u* etc. (see above, p. 313), and other words.

Greek. *θρασ-ύ-ς* 'bold': Mid.H.G. *türr-e* 'bold' Lith. *drąs-ù-s* 'bold' (this word like *drąs-à* 'boldness' which is closely akin, was modified through the influence of *driś-*; see I § 285 Rem. p. 228), *✓dher-s-*. *βραδ-ύ-ς* 'slow': Skr. *mṛd-ú-ṣ* 'tender'. *παχ-ύ-ς* 'thick': Skr. *bah-ú-ṣ* 'thick, much', common ground-form **bhṛgh-ú-s*; can we compare Lith. *bing-ù-s* 'stately, stiff, proud' in spite of the palatal *gh* (cp. Avest. *bazah-* n. 'size, strength')? see I § 467, 2 p. 343. *λυ-ύ-ς* 'clear-sounding', *γλυκ-ύ-ς* 'sweet', *ταρφ-ύ-ς* 'thick' *βαθ-ύ-ς* 'deep', *δασ-ύ-ς* 'thickly overgrown', *ήύ-ς* 'stout, good', *τρᾶχ-ύ-ς* *τροχ-ύ-ς* 'rough, uneven, rugged', *βριθ-ύ-ς* 'heavy', *ὄξ-ύ-ς* 'sharp, piercing'.

πῆχ-υ-ς m. 'fore-arm, something bent': Skr. *bah-ú-ṣ* m. etc., see above p. 313. *πέλεκ-υ-ς* m. 'axe': Skr. *paraś-ú-ṣ* *parś-u-ṣ* m. 'axe'. *στάχ-υ-ς* *ᾠσταχ-υ-ς* m. 'ear of corn'. *γῆρ-υ-ς* m. 'voice'. *γέν-υ-ς* f. 'chin, jawbone': Skr. *hán-u-ṣ* etc., see above p. 313. *ᾠρκ-υ-ς* f. 'hunter's net'. *μέθ-υ*, *γόν-υ*, *δόρ-υ* n., see above pp. 313, 314. *πῶν* n. 'herd' for **πωκ-υ*: cp. Skr. *pāy-ú-ṣ* 'guardian', beside Gr. *ποι-μήν* Lith. *pė-mū̃* 'herdsman' (cp. § 105 Rem. p. 318). *γλάφ-υ* n. 'grotto, cave'.

Italic. We seem to have a trace of the old adjectival *u*-stems in Lat. *idūs* pl. fem. sc. *noctēs*, 'the bright (nights)',

from $\sqrt{a}idh-$ 'burn, be clear'. Compare also *acu-pediū-s* beside Skr. *aś-ú-ṣ* Gr. *ὠξ-ύ-ς* 'swift'. The other Latin forms of this class have gone over to the *i*-declension: *grav-i-s*, *ten-u-i-s*, *suāvi-s* for **syad-ū-i-s*, see above pp. 312, 313; and no doubt *levi-s*, *pingui-s*. The form of the feminine (cp. Skr. *tanv-ī*) must have had something to do with this change of declension.

Masc. *lac-u-s*: O.Ir. *loch* 'lake' n.; compare Gr. *λάκκο-ς* 'hole, pit', which according to the rule given in vol. I § 166 p. 147 implies a stem **lakv-*. *im-petu-s*, *alg-u-s*, *grad-u-s*. Fem. *trib-u-s* Umbr. *trifo* 'tribum', which can scarcely come from *tri-* 'three' + $\sqrt{b}hu-$; *dom-u-s*: O.C.Sl. *dom-ŭ* 'house'; *ac-u-s*, *col-u-s* (also m.). Neut. *pec-u-* Umbr. *pequo* 'pecua' beside Lat. *pec-u-s*, see p. 313 above; *gen-u* see p. 313 f.; *veru* Umbr. *berva* 'verua' *berus* 'verubus': O.Ir. *bir* 'sting, spear', common ground-form **ger-u-*; *spec-u* (beside *spec-u-s* m. f.); *gel-u*.

Old Irish. *tiug* (gen. *tig*) 'thick': O.H.G. *dicchi* 'thick, dense' (Goth. **þik-u-s* or **þiq-u-s*). *il* 'much': Skr. *pur-ú-ṣ* etc.; see p. 312 above. *fiu* 'suitable, worthy' or 'suitability' Mod.Cymr. *gwiw* 'proper, fitting, worthy' Gall. *Visu-riz* pr. kelt. **ues-u-*: Skr. *vás-u-ṣ* *vás-u* (p. 314), see Thurneysen in Kuhn's Ztschr. XXVIII 148 f. *dub* 'black'. *fiuch* 'wet'. From an Indo-Germanic *u*-stem come also *tana* Corn. *tanow* Bret. *tanav* 'thin', cp. Gr. *ταν-ν- τανα-(F)ο-* etc., p. 312 f., and § 103 p. 311.

Masculine. *giun* O.Cymr. *genou* Corn. *genau* 'mouth': Skr. *hán-u-ṣ* f. etc., see above p. 313. *mug* 'slave, servant' for **mog-u-s*: Goth. *mag-u-s* 'boy, servant'; *fid* 'tree': O.H.G. *witu* 'wood'. Feminine. *mucc* 'sow', *deug* 'drink'. Neuter. *mid* 'mead': Skr. *mádhu* etc., see above p. 313; *loch* 'lake': Lat. *lac-u-s* m.

Germanic. The adjectival *u*-stems were partly absorbed into the *io*-declension, the point of connexion being the original feminine formation with *-iē-* *-ī-*. Goth. *kaúr-u-s* 'heavy': Skr. *gur-ú-ṣ* etc., see above p. 312. Goth. *þáurs-u-s* O.H.G. *durr-i* 'dry, arid': Skr. *tṛṣ-ú-ṣ* etc., see above, p. 312. Goth. *aggu-s* 'narrow' instead of **aggu-s* through the influence of the weak form *aggv-* = Skr. *qhv-*, O.H.G. *eng-i* O.Icel. *qng-r*: Skr. *qh-ú-ṣ* etc., see above p. 313. Goth. O.H.G. *fil-u* (A.S. *fealo*

= pr. Germ. **fal-u*, Fris. *ful* = **ful-u* 'much': Skr. *pur-ú-ṣ* etc., see above p. 312. Goth. *hard-u-s* O.H.G. *hart hert-i* 'hard': Lith. *kart-ù-s* 'bitter'. A.S. *myrz-e* 'lasting a short time' O.H.G. *murg-fāri* 'caducus, fragilis, transitorius': Gr. *βραχ-ύ-ς* 'short', common ground-form **myrh-ú-*. Goth. *tulg-u-s* 'firm', *qairr-u-s* 'soft'. A.S. *spit-u* O.H.G. *spiz* m. 'spear', properly something 'pointed', compared with O.H.G. *spizzi* 'pointed'.

Goth. *mag-u-s* O.S. *mag-u* m. 'boy': O.Ir. *mug* 'slave, servant'. Goth. *hair-u-s* m. 'sword': Skr. *śar-u-ṣ* m. f. 'missile' Goth. *haid-u-s* m. 'kind, way' O.H.G. *heit* m. f. 'persona, sexus, rank, position' A.S. *hād* m. 'family, position, nature': Skr. *kēt-ú-ṣ* m. 'phenomenon due to light, picture, form'. A.S. *aelf* Mid.H.G. *alp (alb-)* m. 'goblin, elf' was originally, no doubt, an *-u*-stem: Skr. *ṛbh-ú-ṣ* 'artistic, a sculptor'. Goth. *kinnu-s* f. 'cheek' instead of **kinu-s*, A.S. *cin* f. 'chin': Skr. *hān-u-ṣ* etc., see above p. 313. Goth. *hand-u-s* f. O.H.G. *hant* (dat. pl. *hantum*) f. 'hand'. Goth. *falthu* n. 'money' O.H.G. *fih-u* n. 'cattle': Skr. *pás-u* etc.; see p. 313 above.

In Germanic the *u*-inflexion of consonantal stems largely increased the number of the substantives in *-u-*; the point of contact is seen in forms like (Goth.) acc. sing. *fōt-u* acc. pl. *fōt-uns*. Cp. § 56 p. 103, § 160, 1, § 161.

Balto-Slavonic. Adjectives in *u*-have survived only in Lithuanian, but there they are very common; and their number was considerably increased by the fact that a parallel form in *-u-s* could be made to any adjective in *-a-s*; e. g. *asžtrù-s* § 74 p. 187 f., *gailù-s* § 76 p. 210, *gėdrù-s* beside *gėdra-s*, *drungnù-s* beside *druņgna-s*. Most of the cases passed into the *-io-* inflection; cp. the Germanic section, p. 316. *platù-s* 'broad': Skr. *prth-ú-ṣ* etc.; see above, p. 313. *dras-ù-s* 'bold': Gr. *θρασ-ύ-ς*; see above, p. 315. *salđ-ù-s* 'sweet': O.C.Sl. *sladŭ-kŭ* 'sweet'. *dub-ù-s* 'hollow', *dyg-ù-s* 'prickly', *baug-ù-s* 'timorous', *staig-ù-s* 'hot-tempered', *smag-ù-s* 'malleable'. It is only rarely that the root has the accent, as in *tánk-u-s* 'thick'. The existence of pairs like *drasù-s* 'bold' and *drasà* 'boldness' led to the use of *-u-* as a denominative suffix; e. g. *tamsù-s* 'dark' from

tam-s-ù 'darkness', *czēsù-s* 'timely' from *cszēsa-s* 'time' (a borrowed word). In Slavonic adjectival *u*-stems are found in derivatives with *-go-*; besides *sladū-kū* we have e. g. *tinū-kū qzū-kū* (p. 313).

In Balto-Slavonic the substantives in *-u-* are all masculine. Lith. *med-ù-s* O.C.Sl. *med-ū* 'honey': Skr. *mādh-u* n. etc.; see above, p. 313. Lith. *virsz-ù-s* 'the upper, outer part' O.C.Sl. *vřich-u* adv. 'above'. Lith. *dang-ù-s* 'heaven' beside *dengiū* 'I cover', *vid-ù-s* 'the inner part', *al-ù-s* a drink like beer. O.C.Sl. *dom-ū* 'house': Lat. *dom-u-s* ($\sqrt{\text{dem-}}$ 'build'), *vol-ū* 'ox', *pol-ū* 'side'. In Slavonic all *u*-stems were inflected as *o*-stems.

§ 105. The Suffix *-ju-*. This must be regarded as proethnic, even though we cannot point with certainty to any one example which dates from the Indo-Germanic period. It should be noticed how frequently we find *-ju-* and *-io-* side by side, as Skr. *vā-yú-š* Lith. *vė-ja-s* 'wind', Gr. *v-iv-ç* and *v-ió-ç* 'son'. Skr. *yāj-yu-š* 'revered as divine' and 'revering, pious' and *yaj-ya-s* 'venerandus'.

Remark. The explanation of Skr. *pāy-ú-š* pr. Gr. $\ast\pi\omega\chi-u$ (§ 104 p. 315) as containing the suffix *-u-*, not *-ju-* (similarly Skr. *stāy-ú-š* *tāy-ú-š* Avest. *tāy-u-š* 'thief' op. Skr. *stē-nā-s*, Skr. *dhāy-ú-š* 'thirsty' op. *dhē-nā-*) is based on the hypothesis mentioned in vol. I § 150 p. 136, which would allow us to assume such a root as e. g. $\ast pōj-$, not $\ast pō-$. If this hypothesis be correct, it is natural to conjecture that the suffix *-ju-* may have sprung from these nouns, $\ast pōju-$ being analysed as $\ast pō-ju-$ etc. On this model then were formed e. g. Skr. *vā-yú-š* (Idg. $\sqrt{už-}$), *dhā-yu-š* 'generous' (Idg. $\sqrt{dhē-}$), and later on *-ju-* was added to consonant stems, as Skr. *dās-yu-š*. So far as I can see there is nothing to prevent our assuming that this process took place in proethnic Indo-Germanic.

Aryan. Skr. *dās-yu-š* m., a title both of the gods' enemies, the demons, and of the unbelieving tribes, Avest. *dañhu-š* f. (cp. I § 125 p. 115, § 558 p. 415) O.Pers. *dahyu-* (nom. sing. *dahyāu-š*) f. 'land, district, neighbourhood'. Skr. *man-yú-š* m. 'excited thought, zeal, displeasure, anger' Avest. *mainyu-š* m. 'spirit, genius'. Skr. *vā-yú-š* m. Avest. *va-yu-š* m. 'wind': the Avestic form is no doubt for $\ast uə-ju-$, see I § 109 p. 101. Skr. *mṛ-t-yú-š* m. 'death': perhaps identical with the

Armen. *u*-stem *marh mah* (gen. *marhu mahu*) 'death', see I § 360 p. 276; it is based on a stem *mr-t-*, see § 123.

Skr. *bhuj-yú-ṣ* 'flexible', *śundh-yú-ṣ* 'neat, pure', *dhd-yu-ṣ* 'generous', *śdh-yu-ṣ* 'strong'. The commonest forms are adjectives which are connected with derivative verbs, and mean 'seeking after, desiring something' or 'possessing, performing, exhibiting something' and the like. Examples are *aśvayú-ṣ* 'desiring horses', *śravyayú-ṣ* 'ambitious', *dēvayú-ṣ* 'reverencing the gods', *udanyú-ṣ* 'containing water' *vīrayú-ṣ* 'behaving like a hero'; cp. part. *dēvayānt-* 'reverencing the gods' and feminines like *aśvayā* 'desire for horses'. Avest. *aṇhu-yu-ṣ* a proper name, beside *aṇhuyēmi* 'I govern' *aṇhuyā-* f. government'.

Armenian. Perhaps we should class here *marh* 'death'; see above, under Aryan.

Greek. Lac. Arcad. *v-iú-ς* 'son', Cret. *v-iú-ς*, Att. *vú-ς* (inscr.), Hom. gen. *víōς* etc., beside *víō-ς vó-ς*, which can scarcely have come from the former by dissimilation: cp. Skr. *su-ta-s* 'begotten, son' (cp. W. Schulze, *De reconditiōibus quibusdam nominum in -YΣ exeuntium formis*, *Commentationes philologiae Gryphiswaldenses*, Berol. 1887, p. 17 ff.).

According to Wackernagel (Kuhn's *Ztschr.* XXIV 295 ff., XXVII 84 ff.) substantives in *-ev-ς* like *ρομεv-ς* 'herdsman' (nom. pl. Cypr. *-ῆF-ες*) also belong here, and should be compared immediately with the Sanskrit nouns in *-ayu-ṣ*. Yet some difficulties still remain; should we, for instance, assume Idg. *-ejū-s* or *-ējū-s* for the nom. sing.? The latest discussion of these stems is by Johansson (*De derivatis verbis contractis linguae Graecae*, 1886, p. 73 ff.).

Germanic. Goth. *drun-ju-s* m. 'noise', *stub-ju-s* m. 'dust', (cp. O.H.G. *stuppe* 'dust'); perhaps also *-vaddju-s* f. 'partition, wall, rampart' (O.Icel. *vegg-r*, O.Sax. acc. pl. *wegos* i. e. *weijos*), where *ddj* came from *j* (I § 142 p. 127).

Baltic. In Lithuanian *-ju-* is common, both in primary and secondary use. It forms only masculines. *gỹr-iu-s* 'praise, glory', *vỹr-iu-s* 'eddy', *skỹr-iu-s* 'separation', *vỹ-lu-s* 'enticement, trick' *spēcziū-s* 'swarm' cp. *spēcziū* inf. *spēsti* 'to swarm' (of bees).

There a large number of *nomina agentis*, as *pīrdžiu-s*, 'peditor' *sūkcziu-s* 'trickster', *audėju-s* 'weaver', *rācziu-s* 'wheelwright', *bezdālu-s* 'who sends forth many blasts', and other appellations of living beings to denote a particular characteristic, as *skar-mālu-s* 'scamp' (*skařma-la-s* 'rags torn off') *bėdžiu-s* 'poor creature' (*bėdà* 'need'), *kytrūlu-s* 'wiseacre, coxcomb' (*kytrū-s* 'clever'), *ragūcziu-s* 'horned thing' (*ragūta-s* 'horned'). In Lithuanian -ju- was far more fertile than in the other European languages. Brückner assumes that the whole group of nouns in -ju- is a purely Lithuanian formation (Archiv f. slav. Phil. III 254 f.), but this is improbable.

§ 106. The suffix -nu- (-ṇu-). This is rare in most of the languages. It usually forms substantives.

Indo-Germanic *sū-nu-s m. 'son': Skr. *sūnú-ṣ* O.H.G. *sunu* Lith. *sūnù-s* O.C.Sl. *synū*.

Aryan. Skr. *sū-nú-ṣ* Avest. *hunu-š* m. 'son': Lith. *sū-nù-s* etc., see above. Skr. *bhā-nú-ṣ* 'gleam, sun' Av. *bā-nu-š* m. 'gleam, light'. Skr. *dhē-nú-ṣ* f. 'milk cow' Avest. *dae-nu-s* f. 'female' (of animals). Skr. *dā-nu* Avest. *dā-nu* n. 'trickling moisture, dew', also Skr. *dā-nu-ṣ*. Skr. *vag-nú-ṣ* m. 'sound, cry', *sthānū-ṣ* m. 'stick, stump'; *dhṛṣ-ṇú-ṣ* 'bold', *grdh-nú-ṣ* 'eager, greedy'. Avest. *taf-nu-š* m. 'heat, heat of fever', *bar's-nu-š* f. 'peak, height'; *zaē-nu-š* 'equipped'.

In Sanskrit we find also -anú-, as *krand-anú-ṣ* m. 'bellowing' *nad-anú-ṣ* m. 'din', *vi-bhañjanú-ṣ* 'breaking to pieces'. This -anú- is parallel to -ant-, as is shewn by *kṣip-anú-ṣ* 'missile' *kṣip-añiṣ* 'a cut with a whip'. Hence no doubt it should be derived from -ṇu-. See § 95 p. 285.

Forms like *kṛ-t-nú-ṣ* 'active' (*lōka-kṛt-nú-ṣ* and *lōka-kṛ-t* 'making a clear space', see § 123) gave rise to the fairly common adjectival suffix -tnu- (cp. -t-van- § 116 and the like): *dar-tnú-ṣ* 'breaking to pieces', *dravi-tnú-ṣ* 'running', *mādayi-tnú-ṣ* 'intoxicating'.

The adjectival suffix -snu- was no doubt derived from more than one typical form. *kraviṣṇú-ṣ* 'greedy of raw flesh' (*kraviṣ-* 'raw flesh'), *rōciṣṇú-ṣ* 'shining' (*rōciṣ-* 'light'); *cariṣṇú-ṣ*

'wandering', *gamiṣṇú-ṣ* 'going', *cyāvayīṣṇú-ṣ* 'setting in motion', *jīṣṇú-ṣ* 'victorious', *nī-ṣatsnū-ṣ* 'sitting down'. *vadhasnū-ṣ* 'carrying a murderous weapon' beside *vadhasná-m* 'murderous weapon' (see § 66 p. 142), as Avest. *zaṇnu-ṣ* 'equipped, beside *zaṇne-m* 'equipment, weapon'.

Greek. Here *-vv-* is very rare. Hom. *ῥοῦ-vv-ç* 'footstool' beside Att. *ῥοῦ-vo-ç* 'seat, bench'. *λυ-vv-ç* 'smoke, vapour'.

Italic. The suffix is rare. Lat. *ma-nu-s* f., Umb. *manuv-e* 'in manu', no doubt standing for **mā-nu-*, from $\sqrt{mē}$ 'measure'. Lat. *cor-nu* n. and *cor-nu-s* beside the rare *cor-no-* n.: Gall. *xāp-vv-ξ* (schol. *Iliad*, Σ 219, Eustath. 1139, 57) beside *xāp-vo-v* acc. 'trumpet' (Hesych.), Goth. *haur-n* n. 'horn' (§ 66 p. 147); cp. Danielsson, Pauli's *Altital. Stud.* III 188. *pī-nu-s* f., also *pī-no-* f., cp. Gr. *πί-τυ-ç*. The dative *vēnui* beside *vēnō vēnu-m* from **ves-no-* or **vēs-no-* (§ 66 p. 142 under Armenian) is certainly a late change of declension.

Old Irish. *lī-n* 'number' ground-form **plē-nu-*. Cp. also *orgun orcun* f. 'killing, to kill' for **orgonu *orgunu* according to Stokes, Kuhn's *Ztschr.* XXVIII 291; but **orgunā-* might equally be assumed as its original form.

Germanic. Goth. *su-nu-s* O.H.G. *sunu* O.Icel. *sun-r* m. 'son': Skr. *sū-nū-ṣ* etc., see p. 319 above. Goth. *þaur-nu-s* m. 'thorn' beside the *-o-*stems O.H.G. *dorn* O.Icel. *þorn*; there is, however, no reason why we should not assume that **þur-nu-* was the pr. Germ. form; O.C.Sl. *trī-nū* may also be an original *u-*stem, but note Skr. *tī-ṇa-m* 'stem of grass'. Goth. *asilu-qairnu-s* f. 'μυλὸς ὀνικός, millstone' (its suffix may be compared with that of O.C.Sl. *žrī-ny* f. 'mill') beside O.H.G. *chwir-na* 'millstone, mill' O.Icel. *kver-n* 'mill', Lith. *gīr-nos* pl. 'millstones, mill'.

Balto Slavonic. Lith. *sū-nū-s* O.C.Sl. *sy-nū* m. 'son': Skr. *sū-nū-ṣ*, see above p. 319. O.C.Sl. *či-nū* m. 'rank, order', beside Skr. *ci-tā-* 'ranged, trooped'. In Lithuanian there are a few adjectives, which however may be simply modifications of forms in *-na-* (see p. 317): e. g. *drung-nū-s* 'lukewarm' (beside *druṅg-na-s*), *gad-nū-s* 'useful', *szvel-nū-s* 'tender, soft to touch'; with *-s-*, *dā-snū-s do-snū-s* 'generous'.

§ 107. The Suffixes *-ru-* and *-lu-*. These are original in a few nouns. They are more or less fertile in Baltic as adjectival suffixes.

Indo-Germanic. *-ru-*. **dak-ru* n. 'tear': Gr. *δάκρυ*, Lat. *lacru-ma lacru-ma lacri-ma* (I § 369 p. 279 f.), Corn. *dagr* pl. *dagrou*; hence no doubt Germ. **táχra-* (O.H.G. *zahhar* O.Icel. *tár*) and **tagrá-* (Goth. *tagr* A.S. *teazor*) originally had *-ru-*; another word which no doubt was formed in imitation of this, though from a different root, is Skr. *ás-ru* n. 'tear', cp. Skr. *kṛ-mi-ś*: cp. Lat. *ver-mi-s*: cp. Gr. *ἐλ-μυ-ς* § 97 p. 289. Skr. *śmáśru* n. 'beard, moustache' for **smaś-ru* (I § 557, 4 p. 413), Armen. *moruḵ* (*mōru-ḵ muru-ḵ*) 'beard' (though this comparison is not quite certain); compare Lith. *smak-rà* 'chin' (I § 467 p. 343).

-lu-. Skr. *dhā-rú-ś* 'sucking' Gr. *θη-λυ-ς* 'giving suck, female', beside Gr. *θη-λή* 'mother's breast' Lat. *fē-lāre* etc., see I § 256 p. 210. Skr. *bhī-rú-ś* *bhī-lu-ś* Lith. *bai-tù-s* 'timorous'.

Aryan. Only the evidence of the cognate languages can decide whether the suffix is Idg. *-ru-* or Idg. *-lu-*. Idg. *-ru-* may be assumed in: Skr. *ás-ru* Av. *as-ru* n. 'tear' beside Skr. *aś-rá-m* 'tear' (see above), and Skr. *śmaś-ru* n. 'beard' (parallel to this we find *hári-śmaśāru-s* 'with light coloured beard'); see above.

In the following instances it is doubtful whether we have Idg. *r* or *l*. Skr. *pē-ru-ś* no doubt meaning 'making to bubble, swell'. Avest. *duž-vandru-ś* 'desiring evil'. Skr. *patā-ru-ś* 'flying', like *pata-rá-s* § 74 p. 182. Skr. *vandā-ru-ś* 'praising, glorifying', *pīyā-ru-ś* 'despising, scorning', *patayā-lú-ś* 'flying'. Is *śāt-ru-ś* 'foe' = *śāt-ru-* or *śāt-tru-*?

Greek. *δάκρυ* n., see above. *κάχρυ-ς* f. *κάχρυ* (*κάχρυς*) n. 'roasted barley' and *βότρυ-ς* m. 'bunch of grapes' may be classed here provisionally.

Italic. Extended by *-mā-*: Lat. *lacru-ma* (see above). Perhaps we should class here *tonitru-s* m. *tonitru* n., whose formation seems to resemble that of Skr. *stanayi-tnú-ś* (compare § 106 p. 320) and *tanyatú-ś* 'thunder' (§ 108).

Germanic. Goth. *ái-ru-s* O.Icel. *ǫ-r-r* *ǫ-r-r* m. 'messenger',

✓ *ei-* 'go'; also A.S. *ar* 'messenger', which is no longer recognisable as an *u*-stem. Goth. *hūh-ru-s* m. and O.H.G. *hungar* m. (of which the same may be said) 'hunger', pr. Germ. **hūnax-ru-z* and **hunaz-ru-s*. Pr. Germ. **flō-ru-* Mid.H.G. *vluor* m. f. 'corn-field, ground' A.S. *flōr* m. f. 'house-floor, barn-floor': O.Ir. *lā-r* 'flooring, floor'.

Balto-Slavonic. In Lithuanian there are a considerable number of adjectives in *-rū-s* and *-lū-s*: *bud-rū-s* 'watchful', *suk-rū-s* 'active', *kant-rū-s* 'patient', *ėd-rū-s* 'ravenous' (*ėd-rà* 'fodder') *isz-matrū-s* 'sharp-sighted' (cp. O.C.Sl. *mot-r-iti* 'to look'), *buk-lū-s* 'crafty, sly' *isz-teklū-s* *isz-tenklū-s* 'sufficing'. Parallel to these we sometimes have forms in *-ra-s* *-la-s*, as *gėd-rū-s* and *gėd-ra-s* 'bright, clear', and *gai-lū-s* *gai-la-s* 'ill-tempered, snappish' (of dogs). The *a*-form appears in most cases to be older than the other, and it must sometimes be pre-supposed, even where it does not occur, e. g. in *asztrū-s* 'sharp' beside O.C.Sl. *ostrū* Skr. *catur-aśra-s* Gr. *ἄρο-ς* (§ 76 p. 184 and p. 187).

§ 108. The Suffix *-tu-*¹⁾. This was a common primary suffix used in forming abstract substantives (verbal nouns, *nomina actionis*) even in the proethnic period. These were masculine; but through the influence of the gender of other abstract nouns, they became feminine universally in Greek, and sometimes in Aryan and Germanic. In Aryan, Latin, Balto-Slavonic (and Keltic, see § 156) they are found attached to the verbal system as infinitives (gerunds, supines); and it is possible that this association with the verb, which gave rise to a large number of new formations, began at least in part before the end of the proethnic period. And in this connexion it is especially important to observe that we find the acc. *-tu-m* used after verbs of motion in precisely the same way in Sanskrit, Latin, and Balto-Slavonic; e. g. Skr. *hótum eti* 'he goes make sacrifice',

1) Th. Benfey, Die Suffixe *tu*, *tu* sammt *ātu*, Kuhn's Ztschr. II 215 ff.

Lat. *cubitus* *it*, Lith. *ėiksz vālgytū* 'come and eat', O.C.Sl. *česo izidoste vidětū?* 'quid existiis visum?'

Only a few masculine and feminine substantives formed with this suffix are other than *nomina actionis*, and their uses can easily be derived from the meaning of an abstract verbal noun. The *nomina agentis* (as Skr. *mān-tu-ṣ* m. 'counsellor' beside *māntu-ṣ* m. 'counsel, advice', Goth. *hliftu-s* m. 'thief', O.Icel. *vqrð-r* m. 'watcher, waiter' beside *vqrð-r* m. 'watch') show the same change of meaning as Lat. *hosti-s* O.Ir. *tāid*; and the few adjectives that occur (as Skr. *tāpya-tū-ṣ* 'hot, glowing') are parallel to such forms as Skr. *pū-ti-ṣ* 'stinking'. Cp. § 99 p. 293, §§ 149. 155.

There are a few neuter substantives as Skr. *vās-tu* Gr. ἄσ-τν.

Originally the accent varied in the different cases in connexion with differences in ablaut, e. g. **ēi-tu-* **i-tu-* (from **ei-* 'go'); such a distinction is preserved in Skr. **ē-tu-m*: *i-to-d*. In Sanskrit the variation survived in these cases, which had been incorporated into the verbal system, because, through the difference in their use, their connexion in form was forgotten, but in the complete declension of any one noun the differences were levelled; in some cases the type **ei-tu-* was adopted (e. g. *māntu-ṣ*), in others **itu-* (e. g. *ṛtū-ṣ*). Other survivals of the old gradation are seen in (e. g.) Gr. *κλει-τν-ς* and *κλι-τν-ς*, Lith. *lẽ-tu-s* and *ly-tū-s*. In Latin and Lithuanian the supine was influenced by the *to*-participles and the abstract nouns in *-ti-*, so that the type **itu-* prevailed: e. g. Lat. *da-tu-m* *da-tū* like *da-tu-s* (*da-to-s*) *da-tiō*, Lith. *mĩlsz-tū* like *mĩlsz-ta-s* *mĩlsz-ti* (✓ *melg-*). On the other hand, the corresponding form in Slavonic generally shows the type **eitu-* and itself influenced the *ti*-infinitive (e. g. O.C.Sl. *mĩlēs-tū* and *mĩlēs-ti*); this is certainly connected with the comparative disuse of the *-to*-participle in this group of languages (§ 79 p. 336).

These nouns could be based upon any form which served as a verbal stem, not merely on the root (in the strict sense); hence forms like Skr. *vāmi-tu-m* inf. 'to vomit'. Lat. *vomi-tu-s* m., Skr. *jivā-tu-ṣ* f. 'life' (cp. Av. *jyā-tu-ṣ* f. 'life'), Gr. *ποη-τν-ς*

f. 'cry', Lat. *appara-tu-s* m. *and-tu-s* m., O.Ir. *scarad* 'a severing' Goth. *vratō-du-s* m. 'journey', Lith. *jėszkó-tū* O.C.Sl. *iska-tū* 'to seek'.

-e-tu- is found like *-e-to-* § 79 p. 219 and *-e-ti-* § 100 p. 294), e. g. Skr. *kr-á-tú-ṣ* 'power, strength' *vah-a-tú-ṣ* m. 'bridal procession', Gr. *ἔρv-μo-ς* 'truthful' from **ἔ-rv-* instead of **h-εr-v-* 'existence' (✓ *es-*).

Indo-Germanic. Skr. inf. *bhāvi-tu-m* gerund *bhā-tv-ā* from *bhāva-ti* 'he becomes, is', Lat. *fu-tu-ō*, sup. Lith. *bū-tū* O.C.Sl. *by-tū* 'to be'; we may add, with hesitation, Gr. *φῖ-rv-ς* 'begetter' *φῖ-rv* 'shoot, scion' (see I § 56 p. 46). Skr. *juṣ-ṭv-a* gerund of *jóṣa-ti* 'has pleasure in something', Lat. *gūs-tu-s* m., Goth. *kus-tu-s* m. 'trial, proof'. Skr. *pi-tú-ṣ* m. 'sap, drink, food' nourishment' *pītu-dāru-* m. 'pine tree' n. the resin of this tree, Gr. *πί-rv-ς* 'pine', Lat. *pītu-īta*, O.Ir. *i-th* m. 'corn', Lith. *pė-tūs* pl. 'midday meal, midday'. Skr. inf. *vēttu-m* *vēttav-ē* ger. *vitto-ā* from *vinda-ti* 'finds, becomes possessed of', *vēdi-tu-m* *vidi-tv-ā* from *vētti* 'perceives, knows' (the root is the same), Lat. *vīsu-s* m., O.Ir. *fiss* m. 'knowledge'. Avest. *pešu-š* m. 'ford' (*-š-* for *-rt-*, see I § 288 p. 229 f.), Lat. *por-tu-s* m., O.H.G. *fur-t* m. 'ford' (it has lost its character as a *u*-stem) O.Icel. *fjqrđ-r* m. 'firth, gulf'. Skr. *gán-tu-ṣ* *gā-tú-ṣ* m. 'course, way', inf. *gán-tu-m* *gán-tav-ē* ger. *ga-tv-ā*, Lat. *ad-ven-tus* m., sup. *ven-tu-m* *ven-tū*, Lith. sup. *giñ-tū* 'to be born' (cp. I § 249 p. 204), ✓ *gem-*. Skr. *mán-tu-ṣ* m. 'counsel, counsellor' inf. *mán-tav-ē* ger. *ma-tv-ā*, Lith. sup. *miñ-tū* 'to think of', ✓ *men-*. Skr. inf. *śāsi-tu-m* ger. *śas-tv-ā* from *śāsa-ti* 'he recites', Lat. *cēnsu-s* m. instead of **cens-tu-s* (cp. § 100 p. 295), ✓ *kens-*. Skr. inf. *pāk-tum* *pāk-tav-ē* ger. *pak-tv-ā* from *pāca-ti* 'cooks', Lat. *coc-tu-m* *coc-tū*, O.C.Sl. sup. *peštī* 'to bake' for **pek-tū* (I § 462 p. 338). Lat. sup. *rēc-tu-m* *rēc-tū*, O.Ir. *rech-t* n. 'right', O.Icel. *rētt-r* n. 'right'. Skr. *dhā-tu-ṣ* m. 'constituent part, element', inf. *dhā-tu-m* ger. *dhi-tv-ā* *hi-tv-ā*, Lat. *con-ditu-s* m. sup. *con-ditu-m* *-ditū*, sup. Lith. *dė-tū* O.C.Sl. *dě-tū* 'positum'. Skr. *aktú-ṣ* m. 'salve, light, night' ground-form **ṛq-tú-s*, Lat. *ūnc-tu-m* *ūnc-tū*. Skr. inf. *ap-tu-m* ger. *ap-tv-ā* from *ap-nō-ti* 'attains, gains', Lat. *ad-eptu-s* m. Skr.

vd̥s-tu n. 'dwelling-place, house', Gr. *ῥαῖσ-ρυ* *ᾱσ-ρυ* n. 'city'. Skr. *yā-tu-ṣ* m. 'traveller, time' (no doubt identical with *yātū-ṣ* 'ghost', see below), Lith. *jó-tū* 'to ride'. Lat. sup. *nō-tu-m* *nō-tū* (*ignō-tu-m* *ignōtū*), O.C.Sl. sup. *zna-tū* 'to know'.

Aryan. Skr. *pi-tū-ṣ* m. 'sap, drink, food, nourishment' Avest. *pi-tu-ṣ* m. 'food': Gr. *πί-ρυ-ς* etc., see above p. 325. Skr. inf. *car-tu-m* *cari-tu-m* ger. *cīr-tv-ā* *car-tv-ā* *cari-tv-ā* from *cāra-ti* 'goes, travels', Avest. *car'-tu-ṣ* m. 'horse's course, distance a horse can gallop'. Skr. *gān-tu-ṣ* *gā-tū-ṣ* m. 'course, way', Avest. *gā-tu-ṣ* 'place, room, throne' O.Pers. *gāpu-* 'place, room, throne' (*p* arose regularly in the cases which had *gā-pu-* — see I § 473 p. 348 f. — and from these it spread to the rest): Lat. *ad-ven-tu-s* etc., see above p. 325. Skr. *jan-tū-ṣ* m. 'creature, being, child, people, family, stock', Avest. *zan-tu-ṣ* m. 'alliance, stock', Skr. inf. *jāni-tōṣ*, adv. *jā-tu* 'generally': Lat. *geni-tu-s* m., sup. *geni-tu-m* *geni-tū*, *nā-tu-s* m., \checkmark *gen-*. Skr. *dā-tu* n. 'part, task' Avest. *vī-dātu-ṣ* m. 'breaking up of the body, dissolution, death', beside Skr. *dā-ti* *dyā-ti* 'cuts off': cp. Gr. *δα-ρύ-ς* 'meal' (orig. 'portion') *δαρυ-υών* 'guest'. Skr. *sē-tu-ṣ* m. 'connexion, bond, chain, bridge; binding' (adj.), Avest. *haç-tu-ṣ* m. 'ford, bridge': Lett. sup. *si-tu* 'to bind', \checkmark *sai-*. Skr. *yā-tū-ṣ* Avest. *yā-tu-ṣ* m. 'ghost, demon', no doubt (like *yātu-* above) from *yā-* 'go, fall upon something' (cp. *yā-tār-* 'pursuer'). Skr. *ṛ-tū-ṣ* m. 'fixed time', *tān-tu-ṣ* m. 'cord' (was O.Ir. *tēt* Mod.Cymr. *tant* 'string' an *u*-stem?) *ō-tu-ṣ* m. 'woof'; *sū-tu-ṣ* f. 'pregnancy' inf. *sū-tav-ē* ger. *sū-tv-ā*: O.Ir. *su-th* n. 'fetus'. Avest. *mer'-tu-ṣ* m. 'thought'; *jyā-tu-ṣ* f. 'life'. Skr. *jīvā-tu-ṣ* f. 'life' (no doubt with the same *a* as Avest. *jyā-tu-ṣ*; though we might also regard it as *a* = Idg. *o*, cp. Lith. *gyva-tà* O.C.Sl. *živo-tū* Gr. *βίο-το-ς*), inf. *a-šva-sayi-tu-m* 'to cause to breathe again, console' from *a-švās-aya-ti* 'makes to breathe again, consoles'.

With *-e-tu-*: Skr. *kr-ā-tu-ṣ* m. 'power, strength, power of mind', Avest. *xr-a-tu-ṣ* m. 'understanding, insight', from *kar-* 'set at work'. Skr. *vah-a-tū-ṣ* 'bridal procession', *tan-ya-tū-ṣ* m. 'thunder', *tap-ya-tū-ṣ* 'hot, glowing'. Avest. *r-a-tu-ṣ* 'fixed time' beside Skr. *ṛ-tū-ṣ*.

In classical Sanskrit the accusative, in Veda also the dative and genitive-ablative served as infinitives; e. g. *śrō-tu-m*, *śrō-tav-ē*, *śrō-tōṣ*. The formation of compounds like *śrōtu-kāma-* 'desire to hear' shows that even in later times the feeling that the form in *-tum* was a case had not quite died out. The instrumental (*śru-tvā*, orig. 'with hearing') was used as the (so-called) gerund, logically connected with some noun in the sentence to denote an action accompanying or (generally) preceding the action of the verb, e. g. *śrutvā cābruvan* (*ca abruvan*) 'and hearing (or having heard) they spoke'. All such forms could be used in this way, except those derived from thematic stems (*kr-ā-tu-* etc.).

Armenian. Amongst the *tu*-stems (e. g. *zar-d*, gen. *zar-du* 'adornment') there seem to be none which can be ascribed with certainty to proethnic Indo-Germanic. Hübschmann (Arm. Stud. I 46) with some hesitation connects *ort*, gen. *ortu*, 'calf' with Skr. *pr̥thu-ka-s* 'the young of an animal, child, boy' (Gr. πόρ-τις πόρ-ταξ 'calf').

Greek. The Substantives in *-tv-ς*, except the late form *φι-tv-ς* (p. 325), are all feminine, and occur for the most part in the Ionic dialect. κλι-tv-ς κλει-tv-ς 'slope, hill': Skr. *śri-tv-ā* ger. of *śráy-a-ti* 'leans'. πι-tv-ς 'pine': Skr. *pi-tú-ṣ* etc., see p. 325 above. ἔ-tv-ς 'circumference, circle of a wheel, felloe', Lat. *vi-tu-s* m., sup. Lith. *vý-tū* O.C.Sl. *vi-tū* 'to wind'. βρω-tv-ς 'food, meal': Lith. *gér-tū* 'to drink'. γραπ-tv-ς 'a scratch', from γράφω. ἄρ-tv-ς 'bond': Lat. *ar-tu-s* *ar-tu*. ἀπ-εστύ-ς 'absence'. δαι-tv-ς 'meal'. ἀπο-δαστύ-ς 'division'. κτιστύ-ς 'founding' from κτίζω, ἀκοντιστύ-ς 'javelin-throwing, fight with missiles', from ἀκοντίζω, ληιστύ-ς 'making of booty' from ληίζομαι, φραστύ-ς 'reflection' from φράζω, ἀσπαστύ-ς 'greeting' from ἀσπάζομαι, cp. Germ. *-assu-s* from verbs in *-atjan* p. 331. ἀρπακτύ-ς from ἀρπάζω fut. ἀρπάξω. ἀγορητύ-ς 'harangue' from ἀγοράομαι, βοητύ-ς 'cry, call' from βοάω, ποθητύ-ς 'desire' from ποθέω.

Neuters: only *φι-tv* and *ἄσ-tv*, see above pp. 325, 326.

In the other Indo-Germanic languages, we find numerals in *-ti-ς*, as **penq-ti-s* f. 'fivefold character, the number five'

(§ 101 p. 306 f.). The corresponding forms in Greek are feminines in *-tv-ς*; as *πεντηκοστῦ-ς*, *ἐκατοστῦ-ς* *τριτῦ-ς* (*τριτῦ-ς* is due to the influence of *τριττό-ς*) also *τριπτή-ς* *τετραπτή-ς*, cp. Baunack, Kuhn's Ztschr. XXV 249 ff.

ἔνν-μο-ς 'truthful' from **ἔνν-* 'existence' (instead of **h-ε-νν-*, cp. Dor. *ἐνντες*, Lesb. *ἔσσα*) ground-form **s-e-tu-*, from *√es-* 'esse'.

Italic. The Substantives in *-tu-s* are masculine. Lat. *ac-tu-s*, Umbr. *ahtu* 'actui'. Lat. *adi-tu-s*: Skr. *svāttu-ṣ* (*svā-ētū-ṣ*) 'having its own course' inf. *ē-tu-m* ger. *i-tv-ā*, Lith. *eĩ-tū* O.C.Sl. *i-tū* 'to go'. *rūc-tu-s*: Lith. *rūk-tā* 'to belch', *√reug-*. *duc-tu-s*. *or-tu-s*. *morsu-s* beside *mordeō*. *ē-ven-tu-s*: Skr. *gān-tu-ṣ* etc., see above p. 325. *sēnsu-s* beside *sent-iō*. *con-spectu-s*. *tex-tu-s*: 'Lett. *tes-tu* 'to hew with an axe', *ēsu-s*: Skr. *āttu-m* 'to eat', Lith. *ēstū* 'to devour', O.C.Sl. *jastū* 'to eat', *√ed-*. *sta-tu-s*, sup. *sta-tu-m* *sta-tū*, *prae-stitu-m* and *prae-stātu-m*: Skr. inf. *stihā-tu-m* ger. *sthi-tv-ā* from *tiṣṭhā-ti* 'he stands', Lith. *pa-stótū* 'to become' O.C.Sl. *sta-tū* 'to place oneself'. *sa-tu-s*: Lith. *sė-tū* 'to sow'. *fē-tu-s*. *cap-tu-s*. *rap-tu-s*. *can-tu-s*. *quaes-tu-s*. *auc-tu-s*: Lith. *auk-tū* 'to grow', *√aug-*. *haus-tu-s*. *fla-tu-s*. *flē-tu-s*. *gemi-tu-s*. *fremi-tu-s*. *strep-i-tu-s*. *crepi-tu-s*. *domi-tu-s*. *habi-tu-s*. *exerci-tu-s*. *conā-tu-s*. *ap-parātu-s*. *audī-tu-s*. *vesti-tu-s*. Words like *jūdicātu-s* (*jūdicare jūdex*) gave rise to an independent suffix *-ātu-* for denoting an office or an official organisation, as *principātu-s*, *ducātu-s*, *pontificātu-s*, *senātu-s* (cp. German. *-ōpu-* *-ōđu-*).

The *tu-*stems (i. e. the so-called supines) form a very large group in Latin. *-tu-m* was orig. acc., *-tū* loc. or instr. Most of the substantives in *-tu-s* were also used as supines, e. g. *ēsu-s* 'eating' and *ēsu-m* *ēsū*; on the other hand, it is only a small proportion of the supines beside which we find independent declinable substantives. The freedom with which supines were formed was practically unlimited.

The gender of the neut. subst. *ar-tu-* beside masc. *ar-tu-s* was no doubt fixed by that of *membre-m*, and *testu-* n. (**ters-tu-*, *√ters-* 'dry') by that of *testu-m* (stem *testo-*).

Old Irish. Masculines. *bi-th*, gen. *betho*, 'world'; Mod.Cymr.

by-d, Gall. *Bitu-rīgēs* ('world-kings'): Lith. *gy-tū* 'to revive' O.C.Sl. *ži-tū* 'to live', √ *gei-*. *i-th* 'corn': Skr. *pi-tú-ṣ* etc., see above p. 325. *fiss* 'knowledge, knowing', ground-form **uid+tu-*: Skr. *vēthu-m* etc., see above *ibid.* *gu-th* 'voice'. *cru-th* 'form' *mess* 'judging, judgement' beside *midiur* 'I judge'.

Neut. *su-th* 'fetus': Skr. *sū-tu-ṣ* f. 'pregnancy'. *sru-th* 'stream', √ *srey-*. *rech-t* 'right': Lat. sup. *rēc-tu-m* etc.; see above p. 325.

Like *fiss* and *mess*, the numerous masculines in *-ad* (for *-ā-tu-*) formed from verbs of the 2. conj. are used as infinitives (cp. § 156), as *nertad* 'strengthening' from *nertaim* denom. verb from *nert* 'strength' (cp. Gr. ἀγορῆς, Lat. *cōnātu-s*), and similarly those in *(i)ud* (for *-(i)e-tu-*) formed from verbs of the 3. conj., as *der-choiniud* 'despair, despairing' from *der-choinim* 'I despair', *foillsigud* 'showing' from *foillsigim* 'I show' (cp. Skr. *vaha-tū-ṣ* *anya-tū-ṣ*).

-tu- is a secondary suffix in the termination *-es-tu-* (*-os-tu-*). *aïs aes ois* (gen. *aisso aisa aesa*) m. 'age' ground-form **aiyes-tu-s*, cp. Gr. αἰ(ς)ός 'always'; yet Mod.Cymr. *oes*, since *ɣ* is not usually lost in Cymric, perhaps indicates that the word is to be derived from a stem corresponding to the Skr. *dyuṣ-*, which afterwards, we must assume, was confused with the *es*-stem. *senchas* m. 'antiquity' (O.Cymr. *hencass*, pl. *hencassou* 'old tale') may be an extension of **seno-go-* (cp. Skr. *sana-ká-s* etc., § 88 p. 263), the ground-form being **seno-q-os-tu-*, or a compound **seno-cassu-*. *dorus* n. 'door' (cp. Mod.Cymr. *drws* Corn. *daras*), dat. pl. *doirsib* for **doressaib*, and therefore from a stem **dyores-tu-* in proethnic Keltic. *follus* 'clear'.

Germanic. In West Germanic most of the *tu*-stems (which were common in proethnic Germanic) lost their distinctive character; there was a confusion between the (masc.) *tu-* and the (fem.) *ti-*stems, e. g. O.H.G. *luf-t* m. and f., A.S. *lyf-t* m. and f. The original form of the *tu*-stems is best preserved in Gothic.

O.H.G. *fri-du* A.S. *fri-thu* m. 'joy' pr. Germ. **fri-þu-z*, from Germ. *frī- fri* 'cherish, spare' (which appears in Goth. *freidjan* 'to spare' and other words. Goth. *li-þu-s* m. 'limb', cp. O.Icel. *li-m-r* 'limb'. Goth. *kus-tu-s* m. 'trial, proof', O.Icel.

kos-t-r (acc. pl. *kosto kostu*) m. 'condition', O.H.G. *kos-t* A.S. *cys-t*: Skr. *jutṣ-ṭp-a* etc. see above p. 325. Goth. *luf-tu-s* m. O.H.G. *luf-t* m. 'breeze, air'. O.H.G. *fur-t* m. 'ford' O.Icel. *fjör-ð-r* 'firth, gulf': Avest. *pešu-s* etc., see p. 325 above. O.H.G. *durs-t* A.S. *ðurs-t* (*ðyrs-t*) m. 'thirst', √ *ters-*. Goth. *vul-þu-s* m. 'glory'. Goth. *lus-tu-s* O.H.G. *lus-t* m. 'desire', for **ls-tu-s*, if it is connected with Skr. *la-las-a-s* (I § 299 p. 238, II § 100 p. 302). Goth. *þūh-tu-s* m. 'thought', from *þugkjan* 'to think'. O.Icel. *rētt-r* m. 'right': Lat. *rēc-tu-m* etc., see above p. 325. O.Icel. *hǫtt-r* *hätt-r* m. 'way, sort, kind', beside *haga* 'to arrange'. Goth. *vahs-tu-s* O.Icel. *vǫxt-r* m. 'growth'. Goth. *dáu-þu-s* O.H.G. *tō-d* m. 'death'. O.H.G. *blas-t* O.Icel. *blǫst-r* *blast-r* n. 'blast'. Goth. *flō-du-s* O.H.G. *fluo-t* m. 'flood'. With the meaning changed to that of a *nomen agentis* we have e. g. Goth. *hlif-tu-s* 'thief', O.Icel. *vörð-r* 'watchman'.

-s-tu- is rare (cp. *-s-ti-* § 100 p. 303 and *-s-tyo-* *-s-tro-* etc., see § 61 p. 117). Goth. *maih-s-tu-s* O.H.G. *mist* m. 'ordure', beside O.Icel. *mīga* 'mingere'. O.Icel. *lǫst-r* m. 'mistake' for **lax-s-tu-*, beside O.H.G. *lastar* n. 'crime, vice' (suffix *-s-tro-*, § 62 p. 121), cp. O.H.G. *lahan* 'to blame'.

The termination *-ð-þu-* (also *-ð-ðu-* through the original variation of accent), which appears in derivatives of the weak verbs in *-ðn*, became an independent suffix (cp. Lat. *-ātu-* p. 328). Goth. *gáunðþu-s* m. 'sorrow' from *gáunðn* 'to sorrow', *vratðdu-s* 'journey' from *vratðn* 'to travel'; O.H.G. *wegōd* m. 'help' from *wegōn* 'to help', *klagōd* m. 'lament' from *klagōn* 'to lament'; O.Icel. *laðað-r* m. 'invitation' from *laða* 'to invite'. The following are examples of nouns beside which there is no corresponding verb in *-ðn*: Goth. *gabaúrjōþu-s* 'desire' *manniskōdu-s* 'humanity', O.H.G. *strūtōd* 'strife' *leichōd* 'hymenaeus, concubitus', O.Icel. *unað-r* 'delight'. In O.H.G. the formations in *-isōd inōd -ilōd -alōd* are especially common, as *rīchisōd* 'lordship' from *rīchisōn* 'to govern', *ellinōd* 'zeal, emulation' from *ellinōn* 'to be zealous', *swintilōd* 'giddiness' from *swintilōn* 'to become giddy', *hantalōd* 'laying on of hands' from *hantalōn* 'lay hands on, handle'. On the other hand in Anglo-Saxon and

Norse we find the termination *-nōþu-*, which came from verbs in *-nōn -nan* (e. g. A.S. *haftnōð* 'hold' beside *hæftnian*, O.Icel. *batnað-r* 'improvement' from *batna*); this became fertile and usurped the place of the older *-ōþu-*; e. g. A.S. *fuzelnoð* instead of, and parallel to, *fuzeloð* 'fowling', from *fuzelian*, O.Icel. *dugnað-r* 'strength, help', from *duga*.

The weak verbs in *-atjan* (Gr. *-αζειν*) gave rise to the suffix *-assu-* (Gr. *ἀσπαστί-ς* from *ἀσπάζομαι*, p. 327), which was very fertile in all branches of Germanic except Norse, especially in the extended form resulting from its addition to *n*-stems, *-n-assu-* (Goth. *-in-assu-*). In West Germanic we have also (*-n*)-*iss(u)-* and (*-n*)-*uss(u)-*, whose *i* and *u* are variously explained (von Bahder, Verbalabstr. 119 ff.); and further various modifications of the final *-u-*, due to the analogy of feminine and neuter abstract substantives: fem. (*-n*)-*iss-ō-* (*-n*)-*uss-ō-*, (*-n*)-*iss-jō-* (*-n*)-*uss-jō-*, (*-n*)-*ass-ī-* (*-n*)-*iss-ī-* (*-n*)-*uss-ī-*, neut. (*-n*)-*ass-ja-* (*-n*)-*iss-ja-* (*-n*)-*uss-ja-*. Examples are Goth. *ibnassu-s* 'equality, fairness' (A.S. *emness*), beside A.S. *emnettan* 'adaequare' = Goth. **ibnatjan*; *ufarrassu-s* 'overflow, abundance' from *ufar*. These forms are especially frequent in connexion with verbs in *-inōn*; as *hōrin-assu-s* 'adultery' beside *hōrinōn*, which gave the type for words like *blōt-inassu-s* 'divine service' (from *blōtan*). O.H.G. *rāt-ussa* f. 'riddle' *offan-ussi* f. 'opening'; *ir-suochnissa* f. 'experimentum' *gi-mischnissi* f. 'mixture' *gi-hōrnissi* f. 'hearing'. *-nissa -nissi* had often the appearance of a denominative suffix, and hence it gave rise to a large number of formations like O.H.G. *got-nissa* f. 'godhead' *rein-nissa* f. 'purity' *churt-nassi* f. 'shortness'. In Upper Germany these suffixes were extended by *-īpo-* (§ 80 p. 240), hence *-nissida -nussida*, as in (O.H.G.) *fir-loranissida* 'loss'. *fūlnussida* 'idleness'.

Balto-Slavonic. Lith. *ly-tù-s lē-tu-s* m. 'rain' (supine *lý-tū* 'to rain' *lē-tū* 'to pour'): Lat. sup. *li-tu-m li-tū*, Goth. acc. sing. *lei-þu* O.H.G. *lī-d* m. n. 'fruit-wine'. Lith. *pě-tū-s* pl. 'midday meal, midday': Skr. *pi-tú-ṣ* etc., see p. 325 above. It is a moot point whether the adjectives in *-tù-s*, as *sta-tù-s* 'blunt, impolite', *drums-tù-s* 'dark, troubled' (of water), were

originally abstract substantives (p. 324), or whether they were modifications of old adjectives in *-ta-s* (see p. 317). O.C.Sl. *kra-tū* 'a time, occasion' (*dūva kraty* 'twice'): Skr. acc. pl. *kṛ-to-as* 'so many times'; Lith. *kaṛta-s* may have also been originally a *u*-stem, from which we could then directly derive the form in *dū kartū* 'twice' *szeszis kartūs* 'six times' and the like.

The largest group of *tu*-stems are the infinitives (supines), which were formed at will from any verb. The Lithuanian supines in *-tu -tū* (the quantity differs in different dialects), which should properly be written *-tu* (their final nasal is still kept in the compound form of the optative, e. g. 1. pl. *sùktum-bime*), and the Slavonic forms in *-tū*, are acc. sing.; cp. Lat. *-tu-m*. Lith. *dū-tū* O.C.Sl. *da-tū* 'to give', *bū-tū bý-tū* 'to be', *ěstū* 'to devour' *jastū* 'to eat', *jěszkó-tū iska-tū* 'to seek', *sědě-tū sědě-tū* 'to sit', *ganý-tū goni-tū* 'to tend, pasture'; cp. also Pruss. *dā-tun dā-ton* 'to give' *maitā-tun* 'to nourish' with other examples. In Old Church Slavonic there is a rare parallel form in *-tu*, (as *by-tu*), which may be regarded as gen. or loc., and Prussian has dative forms in *-twei*, as *dā-twei*.

IV. The Suffix *-ī-* (*-iē-*)¹⁾.

§ 109. This suffix was used to form feminines in the proethnic and later periods. It served to differentiate the gender in the same way as *a* beside *o* (§ 59 ff.). In this function it was a secondary suffix, since these feminines were derived from the masculine and neuter stem. When a feminine of this kind was formed from *o*-stems, the stem-final *-o* was dropped in exactly the same way as before the suffix *-iō-*; e. g. Skr. *vṛk-ī* 'she-wolf' the feminine of *vṛka-s* 'wolf' (cp. § 63 p. 126, Rem. 3 p. 132). More rarely *-ī-* has the appearance of a primary suffix,

1) E. Sievers, Über die Feminina auf urgerm. *ī*, Paul-Braune's Beitr. V 136 ff. O. A. Danielsson, Om die indoeuropeiska femininstammarne på *-ī*, Upsala universitets årsskrift 1881. W. Burda, Das slav. Suffix *ynja*, nom. sg. *yni*, Kuhn-Schleicher's Beitr. VI 194 ff.

as in Skr. *śām-i* 'work' Gr. *φύλα* 'flight' (for **φύλ-α*); it cannot be shewn with certainty that such primary feminine forms existed in the proethnic language.

It is difficult to determine what was the strong form of the suffix *-i-* in the Indo-Germanic paradigm. For though as a rule the classes of feminine nouns which contain the suffix are easily distinguished in the different languages, yet they show important differences in form which cannot have arisen simply and solely through the operation of phonetic laws. Indeed it is obvious that its declension has been influenced in very many ways by that of other stems. To me it seems most probable that *-iē-* (sometimes *-iē-*) was the form of the strong-grade in Indo-Germanic. Cp. *-iē-* *-iē-* : *-i-* in the optative, as in Lat. *s-iē-s* : *s-i-mus*, and the masculine suffix *-iē-* *-iō-*, *-iē-* *-iō-* : *-i-*, *-i-* (§ 63 p. 122 f.).

Remark 1. The following conclusions seem to me fairly probable. In proethnic Indo-Germanic the nom. sing. ended in **-i*; Gr. *-iā* was formed on the analogy of *-iār*; Lat. *-iē-s* Lith. *-(i)ē* (beside *-i*) come from the extension of the form *-iē-* (*-iē-*) to all the cases. The acc. sing. ended sometimes in **-i-m* (Skr. *-i-m*) sometimes in **-i-ŋ* cp. the opt. 3. pl. Lat. *s-i-ent* for **s-i-ŋt*, I § 226 p. 193), from the latter we have Lat. *-iem* (*māter-iem*), Skr. *-iyam* (*str-iyam*), Gr. *-iav* (*νότ-ιav*), the Skr. and the Gr. form having *-m* added on the analogy of the terminations *-i-m* *-ā-m* etc. Similarly the acc. pl. generally, perhaps always ended in **-i-ŋs* Skr. *-iyas* (*str-iyas*), Lat. *-iēs* (*māter-iēs*): in Gr. *-i-ŋs* is perhaps represented by *-iās*, the by-form of *-iav*; *-iā*: before consonants. The so-called Weak Cases with a case-suffix beginning in a consonant had *-i-*, as loc. pl. **-i-su* (Skr. *-i-ṣu*). Elsewhere the form was *-iē-* or *-iē-*, e. g. gen. sing. **-(i)iēs*. This form of the suffix is regularly represented in Latin, Balto-Slavonic, and Aryan, Lat. *māter-iē-*, Lith. *žem-ė* for **žem-iē-*. (I § 147 p. 121), O.C.Sl. *zem(i)-ja-* (cp. *stojati* for **stojēti*, I § 76 p. 66), Skr. *viduṣ-yā-*. The Ablaut is thus precisely parallel to that of the optative suffix *-iē-*, e. g. Lat. *rab-iē-s* (gen. sing.): *rab-i-em* : *datr-i-x* = *s-iē-s* : *s-i-ent* : *s-i-mus*. In several languages confusion with the *iā-* stems led to the substitution of *-(i)iā-* for *-(i)iē-*: e. g. gen. sing. Gr. *νότ-ιας* *iōvīas* (this change was probably due in part to the influence of the heavier form of the acc., sing. and pl. *-iav* *-iav*). O.Ir. *Brigte* (cp. Skr. *bṛhatyās*), Goth. *máujōs* beside nom. sing. *νότ-ια* *iōvīa*, *Brigit* (Skr. *bṛhatī*), *mavi*; so also Lith. *marczyōs* beside *marīl*. Different views as to the form of the strong grade in this suffix have been maintained by Kluge, Paul-Braune's Beitr. VI 391 f., and by Osthoff, Zur Gesch. d. Pers. 338 f.

-i- was the regular form of the suffix when other suffixes were

added to it: e. g. Skr. *pātni-vant-* 'accompanied by one's wife', Gr. *παίδι-της* beside Dor. *πολιῦ-τα-* Ion. *πολιῆ-της* 'citizen', Lat. *victri-x*.

There was a confusion with the *i*-stems (§ 92 ff.) as well as with the *iā*-stems. Compare e. g. Skr. *nār-i-* and *nār-i-* 'woman' (see Benfey, Nachr. von der gött. Ges. d. Wiss. 1876 p. 644 ff., Lanman, Noun-Inflection p. 370), Gr. *ληστρε-ι-* (gen. *ληστροῖδος*) 'female robber' beside *ψαλτρε-ω* 'girl who plays the guitar', Lat. *nept-i-s* beside O.H.G. *nift* (= Goth. **nift-i*) Skr. *napt-i-*, *suāvi-s* for **suād-υ-i-s* beside Skr. *svād-ī-*, Skr. *ātī-ṣ* Lith. *dnti-s* beside Gr. *νῆσσα* 'duck' for **νατ-ια*. In these cases the *-i*-declension was the older, but the converse change occurs in Sanskrit, stems in *-i* being inflected in the same way as those in *-ī* in order to mark their feminine gender, e. g. gen. sing. *gātīās* beside *gātēṣ* from nom. *gātī-ṣ*, nom. sing. *bhūmī* gen. sing. *bhūmyās* beside nom. *bhūmi-ṣ* (§ 97 p. 289), *yuvati* beside *yuvati-ṣ* (§ 101 p. 307).

Finally these stems were confused with the inflexion of monosyllabic stems, such as Skr. *bhī-* Gr. *χι-*, in which *-ī* and *-i-* alternated (nom. *bhī-ṣ* gen. *bhiy-ās*, Gr. *χι-* *χι-ός*). Hence e. g. Skr. nom. *napt-i-ṣ* gen. *napt-iy-ās*, Gr. *πολι-* *πόλι-ος*.

Remark 2. To this last remark I must add a corollary, lest it should be taken to imply the existence of a third *i*-suffix, *-ī* *-i-*, in Indo-Germanic (*-i-* in all cases whose case-suffix began with a consonant, *-i-* where it began with a sonant) in addition to *-i-* (*eī-*) and *-ī* (*-iē-*). There would be just as much and just as little reason for supposing a parallel suffix *-ū* *-u-* on the strength of such forms as Skr. *śvaśrū-ṣ* *śvaśrūv-am* O.C.Sl. *svekrj svekrūv-e* Gr. *νέκρ-* *νέκρ-ος*. As a matter of fact it seems to me very probable that all these polysyllabic *-i* : *i-* stems and *-ū* : *-u-* stems have simply abandoned their original inflexion in order to conform to the type of such monosyllabic stems as Skr. *bhī-* Gr. *χι-*, Skr. *bhrū-* Gr. *ὄρεϋ-*, in which *-ī* and *-ū* are part of the 'root' (cp. § 8 Rem. 1 and 2 p. 20 f.). This change of inflexion will call for further notice when we come to the formation of the cases.

§ 110. Differentiation (Motion or Feminine-formation) of *u*-stems (§ 103 ff.). Originally the no doubt nom. sing. was *-eū-i* gen. sing. *-u-iēs* (yet notice also Avest. *vanəhu-yā*), loc. pl. *-u-i-su*. Skr. *svād-ī-* Gr. *ῥδεῖα* for **σῶῤῥδεῤῥ-ια* Lat. *suāv-i-s*, beside masc. Skr. *svādū-ṣ* Gr. *ῥδύ-* 'sweet'. Skr. *gurv-ī-* Gr. *βαρεῖα* 'gravis'. Skr. *prthv-ī-* Avest. *per'p̥w-i-* Gr. *πλατεῖα* 'broad, wide'. Skr. *tanv-ī-* Lat. *tenu-i-s*. In Germanic and Baltic post-consonantal *u* was dropped before *-iē-* (*-iā-*): Goth. *kaúr-jō-* 'gravis' (acc. sing. *kaúrja* nom. pl. *kaúrjōs*) for **kurū-jō-* (cp. O.Icel. *ylg-r* I § 444 p. 329); Lith. *saldžiō-* (gen. sing. *saldžiōs*) for **saldū-jō-*, on the analogy of which was formed the nom. *saldī* instead of **saldv-i*; Goth. *hard-jō-* 'hard' Lith. *karcziō-*

'bitter' (nom. *kartî*) from masc. *hard-u-s kart-û-s*. In this class of adjectives, the unextended form, without -î-, could also be used for the feminine; e. g. Skr. *tanû-ṣ*, Gr. ἡδύ-ς θῆλυ-ς (in Homer and elsewhere), Goth. *kaúru-s* (only -u-s is ever found in the nom. sing.). The nom. in -î is found in Gothic in the subst. *mavi* 'girl' for **mazū-î*, beside the masc. *magu-s*; the analogy of the cases with this form of the stem, **ma(ṣ)ū-î* gave rise to the gen. *máujōs* instead of **magjōs*.

Differentiation of *n*-stems (§ 112 ff.). Skr. *tak-ṣṇ-î* Gr. τέκταινα (for *τεκταν-ια): Skr. *tákṣan-* Gr. τέκτων 'worker in wood, carpenter'. Skr. *rājñ-î* from *rájan-* 'king' O.Ir. *rīgain* 'queen', whose ground-form was **rēgṇ-î*. Skr. *yūn-î* from *yúvan-* 'young, young man' Lat. *jūn-i-x*. We may probably infer from Skr. *pátñî* Gr. πότνια 'lady' and Gr. δέσποινα 'mistress' for *-*porvīa* (I § 488 p. 360), as compared with the masc. Skr. *páti-ṣ* Gr. πόσι-ς, that -*n-î* could be used as an independent suffix even in the proethnīc period.

Skr. *śun-î* from *śván-* *śún-* 'dog'. *pañca-dāmn-î* from *pañca-dāman-*. *maghōn-î* from *maghāvan-* *maghōn-* 'giving bountifully, dispenser'. Avest. *ašaon-î* from *ašavan-* *ašaon-* 'pure' (Skr. *ṛtāvan-* 'holy, pious'). With Skr. *pát-nī* we should no doubt compare Skr. *pálik-nī* *hárīk-nī*, beside *palitá-* 'gray, hoary' *hárīta-* 'tawny' (as to *k* for *t*, see the Author, Morph. Unt. II 198), *páruṣ-nī* beside *paruṣ-á-* 'knotty'.

Gr. γείταυνα from γείτων 'neighbour'. Θεράπαινα, beside Θεράπ-ν-η, both from Θεράπων 'servant', λέαινα from λέων 'lion' (these masculines were originally *n*-stems; see § 114, under Greek). -*ainu* was taken into general use as an independent suffix, denoting female creatures: λύκαινα, κάπραινα, ἡμι-θέαινα, etc. Notice further φάγαινα 'voracity, ravenousness' beside φαγών 'devourer'. ἄγκοινα (Att.) beside ἄγκών 'bend of the arm'; we should no doubt compare Hom. ἐπ-ηγκεν-ίδ-ες 'side-planks of a ship'.

Lat. *jūn-i-x*, see above. *corn-i-x* beside Gr. κορών-η 'crow', cp. also Umbr. *cur-n-ac-o* 'cornicem'.

O.Ir. *rīgain* 'queen': see above.

In Germanic we have *-un-ī-* *-in-ī-* (Idg. *-yn-ī-* *-en-ī-*) and *-n-ī-*. *-un-ī-* is contained in Goth. *laúh-mun-ī* 'flash', O.H.G. *wirtun* (beside *wirtin*) 'hostess', O.Icel. *apynja* from *ape* O.H.G. *affo* 'ape', and, without any masc. *n*-stem, *as-ynja* 'goddess' (masc. *as-s*) and other forms. *-in-ī-* appears in Goth. *Saúr-ini-* 'Syrian woman' (m. *Saúr*); it is frequent in West-Germanic, as O.H.G. *herzohin* from *herizogo* 'duke'; hence came new formations like *chuning-in* from *chuning* 'king', *esil-in* from *esil* 'ass'. *-n-ī-* in O.H.G. *birn* (*Hrod-birn* etc.) from masc. *bero* 'bear', Mod.H.G. *ricke* 'roe' (female) for **rik-nī* (I § 214 p. 181, § 530 p. 388) beside O.H.G. *rēh* n. 'roe' (male and female) pr. Germ. **raix-a-*.

The Slavonic feminines in *-ynji* no doubt belong originally to this class (*j* has come in from the other cases, as acc. *-ynja*): *bogynji* 'goddess' *blagynji* 'kindness'. They appear to have arisen through an analogical extension of the use of *-n-ī-* (cp. the Author, Morph. Unt. II 200).

The original inflexion of these feminines was perhaps nom. sing. *-en-ī*, gen. sing. *-n-īēs* and *-y-īēs* loc. pl. *-n-ī-su*.

Differentiation of *r*-stems (§ 119 ff.). The original endings were doubtless nom. sing. *-er-ī*, gen. sing. *-r-īēs*, loc. pl. *-r-ī-su*. Skr. *dā-tr-ī* Gr. *δό-τειρα* for **δο-τερ-ια* Lat. *da-tr-ī-x*, beside Skr. *dā-tár-* Gr. *δο-τήρ* *δω-τωρ* Lat. *da-tor* 'giver'. Skr. *jāni-tr-ī* Gr. *γενέ-τειρα* Lat. *gene-tr-ī-x* 'mother'. Skr. *bhar-tr-ī* Avest. *bar'p̄r-ī* *ber'p̄r-ī* 'supporter, mother'. Skr. *s-tr-ī* Avest. *s-tr-ī-* 'wife, woman'. Skr. *nē-tr-ī* 'she who guides', *dēs-tr-ī* 'she who shows', *cōdayi-tr-ī* 'she who drives on'; *dhō-tár-ī* f. 'shaking'. Gr. *εὐνή-τειρα* and *εὐνή-τερ-ια* 'wife', *σώ-τειρα* 'saviour lady', *ψάλ-τερ-ια* 'guitar girl'; we also have *-īs* *-lō-os*, as *ληστρ-īs* 'female robber', *ἀλε-τερ-īs* 'female miller', *αὐλῆ-τερ-īs* (beside *αὐλή-τερ-ια*) 'flute-girl'. Lat. *obstē-tr-ī-x*, *mere-tr-ī-x*, *imperā-tr-ī-x*, cp. also the Osc. *Fuu-tr-eī* 'Creatrici, Genetrici'. It is still doubtful whether this Indo-Germanic formation in *-tr-ī-* can be directly connected with the West-Germanic feminines like A.S. *baecestre* 'baker-woman', O.Sax. *agastria* 'magpie' O.H.G. *wagastria* 'lance', Goth. *hoilf-tri* f. 'coffin' and Lithuanian feminines like *áuklė* 'children's attendant' (i. e. **áuk-klė*, from *áugu* 'I grow up')

perē-klē 'brood-hen' (see Kluge, Nom. Stammb. p. 24 and J. Schmidt, Kuhn's Ztschr. XXV 29). They can also be explained as extensions of stems with the suffix *-tro- -tlo-* (§ 62 p. 118 ff.).

Differentiation of *nt*-stems (§ 125 ff.). It is certain that the feminine participles of non-thematic tenses which end in a consonant had *-nt-* in all their cases, e. g. **s-nt-ī* f. 'being'; similarly the feminines of *-uent*-stems had *-unt-ī-*. On the other hand, we find *-nt-* throughout the paradigm in forms like Gr. *ἄεσσα γροῦσα* (from *ἄημι* 'I blow' *ἔγνων* 'I perceived') ground-forms **uē-nt-ī* **gnō-nt-ī* (for Skr. *vātī*, which seems to contradict this, see below). It is not clear how far there was any variation of ablaut in the elements immediately preceding the *-ī*-suffix in the *-o-nt-* participles; but it is certain that *-nt-* sometimes appeared even here.

Skr. *sat-ī* Avest. *hait-ī-* Gr. Dor. *ἔασσα* Att. *οὔσα* O.C.Sl. *sqšti*, beside masc. Skr. *s-ánt-* etc. 'being', indic. 3. sing. Skr. *ás-ti* 'is'. Skr. *br̥hat-ī* Avest. *ber'zaitī-*, O.Ir. *Brigit* (O.Celt. *Brigantiae* dat. sing. with Latinised ending), from masc. Skr. *br̥h-ánt-* 'being great, exalted'. Skr. *vánt-ī* (*vāt-ī* Avest. *vāiti-* is no doubt a re-formation following the analogy of *sat-ī*: *sánt-am*; see V. Henry, Revue Crit., 1887, p. 100), Gr. *ἄεσσα*, beside masc. Skr. *vā-nt-* Gr. *ἄεϋς ἄεντ-* 'blowing'. Skr. *tu-dá-nt-ī* and *tudat-ī* beside *tudá-nt-* 'tundens', Gr. *ἰδοῦσα* beside *ἰδών ἰδό-ντ-* 'beholding'. Skr. *bhára-nt-ī* Avest. *bare-nt-ī* Gr. *φέρουσα* O.C.Sl. *berašti*, beside *bhára-nt-* Gr. *φέρων φέρο-ντ-* O.C.Sl. *bery* 'ferens'. Goth. *hulund-i* 'cave' ('covering, hiding'), *frijōnd-i* 'female friend'; the participles which were in actual use as such had passed over to the *in*-declension, as *batrandei* gen. *batrandeins*. Lith. *sukant-ī* gen. *sukancziōs* from masc. *sukās* 'turning'. O.C.Sl. *berašti*, instead of **berašti*, where *š* has forced its way in from the other cases, as gen. *berašte*; in these *-št-* came regularly from *-ti-* (I § 147 p. 132 f.).

-unt-ī- Skr. *āpa-vatī* from *āpa-vant-* 'rich in water', Gr. *ὀπό-εσσα* from *ὀπό-εις ὀπό-εντ-* 'rich in sap'; in Greek *-φετ-* appears

for *Fur-*, see § 127. Skr. *sáras-vat-ī* 'rich in water' f. Avest. *haraxwaiti-* O.Pers. *harauvati-*.

Differentiation of *s*-stems (§ 131 ff.).

-es-ī. Skr. *ródas-ī* from *ródas-* 'world', *śavas-ī* f. 'the strong one' from *śavas-* 'strength'. Gr. Att. ἀναίδεια 'shamelessness' ἀλήθεια 'truth' from ἀν-αυδής ἀληθής. Lat. *temper-iē-s* from *tempus*.

The original forms of the part. perf. act. were doubtless nom. sing. *-us-ī* gen. sing. *-us-iēs* loc. pl. *-us-i-su*. Skr. *vid-ús-ī* Avest. *viđ-uš-ī-* Gr. *iđ-vīa*, beside masc. Skr. *vid-vān* Avest. *viđ-vā* Gr. *iđ-uís* 'knowing'. Similarly Lith. *višk-us-i* O.C.Sl. *vlük-úši* 'having drawn'. A feminine of this kind is implied in Goth. *bēr-us-jōs* 'parents' (those who have borne): on the model of the feminine (**-usi -usjōs*) was formed a masculine with *-ja-*. It is natural to infer a nom. sing. *-ues-ī* from the Gr. (Dor. Att.) by-forms in *-(f)εια*, as *γεγον-εία*, *ἐρορη-εία*: *γεγονεία *γεγονυῖας* was levelled on the hand to *γεγονεία -είας*, on the other to *γεγονυῖα γεγονυῖας* (cp. § 136 Rem. 2).

Similarly in primary comparative forms: *-ies-ī -is-iēs -is-ī-su*. Skr. *jyā-yas-ī* from *jyā-yān* 'mightier'. Avest. *frā-yah-ī-* from *frā-yā* 'more'; an isolated *-išt* is perhaps contained in Skr. *māhišt mahišt* beside *māh-iyas-ī*; see J. Schmidt, Kuhn's Ztschr. XXVI 386. Goth. *jūh-iz-ei* 'younger' (cp. *batrandei* p. 337). O.C.Sl. *boljši* beside neut. *bolje* 'greater': nom. *boljši* gen. *boljšę* instead of **bolješī *boljšę* (cp. § 135 Rem. 1).

Differentiation of *o*-stems (§ 59 ff.). *-ī-* was in use as well as *-ā-* in proethnic Indo-Germanic. Skr. *vṛk-ī* O.Icel. *ylg-r* O.H.G. *wulpa* 'she-wolf' (pr. Germ. **wul-b-ī *wulz(μ)jōs*, I § 444 p. 329), beside Skr. *vṛka-s* Goth. *vulf-s* 'wolf'; cp. also A.S. *wylf* f. beside *wulf*. Skr. *dēv-ī* 'goddess' Avest. *daəv-ī-* 'witch' Gr. *ḗta* 'divine lady' for **ḗf-ia* Lith. *deiv-ė* 'ghost' *dėv-ė* 'goddess', beside Skr. *dēv-ā-s* Lith. *dėv-a-s* 'god'. Skr. *pīvar-ī* Gr. *πίερα*, beside *pī-varā-s* Gr. *πιερός* 'fat' (cp. § 74 p. 182, § 76 Rem. 1 p. 201). Skr. *dūt-ī* 'female messenger' from *dūtā-s* 'messenger', *yam-ī* from *yamā-s* 'akin'. Gr. *ἑταῖρα* 'female companion' instead of **ἑταιρα*, beside *ἑταρός* 'companion' (Wheeler,

Nominal acc. 59). Goth. *þiv-i*, gen. *þiu-jōs*, 'female servant', beside *þiu-s*, gen. *þivis*, 'servant', O.Icel. *mer-r* 'mare' beside *mar-r* 'horse'.

Sporadic examples. Sanskrit. *nap-tī* 'female descendant' O.H.G. *nift* (Goth. **nift-i*) 'neptis, privigna', beside Skr. *nāpāt-* 'offspring'. Skr. *-ghn-ī* beside *-han-* 'killing'. Greek. *μῦα* for **μυσ-ια* Lith. *mus-ė* 'fly', beside Lat. *mus-ca*. *ῥῆσσα* 'female labourer' for **ῥῆτ-ια*, beside masc. *ῥῆς*, gen. *ῥη-τ-ός*. *πέζα* (for **πεδ-ια*) 'foot, lowest part', beside *πούς* 'foot' (cp. § 160, 1). *πίσσα* Att. *πίττα* 'pitch' (for **πικ-ια*), beside Lat. *pix*. *κίσσα* Att. *κίττα* 'jay' (for **κικ-ια*), beside Skr. *kiki-ś* 'jay'. *φάσσα* (for **φак-ια*), 'wild pigeon', beside *φάψ* (gen. *φασ-ός*) the same, cp. I § 486 Rem. p. 359, § 495 Rem. 364. *μία*, gen. *μῦς*, 'una' for **σμ-ī-*, beside *έν-* (nom. *ένς* *σίς*) 'unus' for **sem-* (I § 204 p. 172, II § 160, 1). Latin. *pauper-iē-s* beside *pauper*, like *barbar-iē-s* beside *barbaru-s*. O.Ir. *s-ī* 'ea' Goth. *s-i* 'ea': cp. Skr. *s-yā*. *sētig* 'female companion, wife' for **sentic-ī*. Gothic. *vas-t-i* 'garment', *hwōf-t-ulī* 'fame'; A.S. *huncicge* 'huntress' beside *hunta* 'hunter' and the like, see Kluge, Nom. Stammmb. p. 22. Lithuanian. *žēm-ė* O.C.Sl. *zem(l)-ja* 'earth', beside Skr. *kṣām-jm-* Av. *z'm-* Gr. *χθών* (I § 204 p. 172, II § 160, 2). Lith. *szī* O.C.Sl. *si* 'haec' beside *szī-s* *sī* 'hic' (gen. *szīō*, *sego* instead of **šego*). Lith. *patī*, gen. *pacziōs*, 'lady, ipsa', beside masc. *pati-s* (*pāts*) gen. *patēs*. Lith. *marī*, gen. *marcziōs* 'bride'. O.C.Sl. *ladiji* (*aldiji*) 'ship', and with masculine gender (which is not original) *baliji* 'physician' *sądiji* 'judge' (cp. the Slavonic masculines in *-a*, § 59 p. 109); *-ī-* like *-ī-* (Lith. *mō-jī-s*) p. 122 footnote 2 and *-īn-* § 115 (under Aryan).

§ 111. Of the words in which *-ī-* appears to be a primary suffix, none show it in more than one language simultaneously. Examples are: Skr. *śām-ī* 'work'. *śāc-ī* 'strength'.

Gr. *φύζα* 'flight' for **φυγ-ια*. *οχιζα* 'wood split small, billet' for **σχιδ-ια*.

Lat. *ac-iēs*. *scab-iē-s*. *spec-iē-s*. *prō-geniēs*. *dī-luviē-s*.

Lith. *žinė* 'knowledge'. *srov-ė* 'stream'. *rėk-ė* 'slice of bread'. *dūb-ė* 'hollow, pit'.

Many examples are doubtful, as Gr. *ῥσσα* 'rumour, prophecy'

(beside ὄψ 'voice, speech'), μοῖρα 'appropriate share, fate' (beside μόρος 'lot, fate'), Goth. *bandi* 'bond, chain' (beside O.H.G. O.Sax. *band* n. 'bond').

V. Suffixes in *-n*¹).

§ 112. The parent language had four suffixes ending in a nasal: *-en-*, *-ien-*, *-uen-*, *-men-*²). They have a good deal in common with *-o-*, *-io-* *-i-* *-ī-*, *-uo-* *-u-*, *-mo-*, and it is not improbable that the forms *-ien-*, *-uen-* and *-men-* were formed in the proethnic period merely by the addition of *-(e)n-* to such older suffixes.

This process of extension can be seen at work in the separate languages as well; and we must there regard it as a continuation, or renewal, of a tendency which first appeared in proethnic times. Compare, for instance, the developement of the *n*-declension in Germanic.

The oldest point of contact between the four *n*-suffixes and the corresponding *o*-suffixes is found in the representation of *n*-stems by *o*-stems in compound words, which began in the proethnic period; e. g. Gr. αἶμο-βαφής and ἄν-αιμο-ς beside αἷ-μα (ἄν-αἵμων); further examples are given in § 12 p. 26 f. This shews that there were even then many parallel stems in *-n*- and *-o-* with no difference of meaning; for some reason or other the *o*-form of these words was preferred in composition, and by degrees this established a general rule for compounds

1) H. Ebel, Suffix *-ion* and *-tion* [in Old Italic]. Kuhn's Ztschr. V p. 420 f. R. Fisch, Substantiva personalia auf *ō*, *ōnis* [in Latin], Archiv für lat. Lexikogr. und Gramm. V 56 ff. W. Meyer, Das lat. Suffix *ō*, *ōnis*, ibid. 223 ff. H. Osthoff, Zur Geschichte des schwachen deutschen Adjectivums (Forschungen im Gebiete der idg. nominalen Stammbildung II) 1876. Idem, Zur Frage des Ursprungs der german. *n*-Declination, Paul-Braune's Beitr. III 1 ff. The Author, Die schwache Form der Nominalstämme auf *-n* in suffixalen Weiterbildungen und Zusammensetzungen, Morph. Unt. II 148 ff.

2) One form with *n* is quite unique; **ghiem-* **ghiem-* (Avest. *zyā* Lat. *hiem-s*), which, having due regard to Skr. *hēman* Gr. *χεῖ-μα*, we ought apparently to divide **ghī-em-* **ghī-em-*. I have attempted to explain this rare word in § 160, 2.

of *-n*-stems. Another principle of formation, exemplified in most of the languages in forms like Skr. *aśm-īya-s* beside *āś-man-*, Gr. *χειμ-ίη* beside *χεῖμα χειμῶν*, seems to have arisen in the proethnic period. Further in almost all the languages, in some of them very frequently, we find parallel forms in *-n-* and *-o-* each of which is completely declined, some of them indeed having a slight difference of meaning (to this point we shall return later on); e. g. Skr. *vāk-van-* and *vāk-va-* 'turning, rolling' (intr.), *dhār-man-* and *dhār-ma-* 'law, ordinance', Gr. *στράβ-ων* 'squinter' and *στραβ-ός* 'squinting', *οὐραν-ίων* 'heavenly being' and *οὐράν-ιος* 'heavenly', *ἐθελή-μων* and *ἐθελη-μός* 'willing', Lat. *in-cub-ō* and *in-cub-u-s*, *lan-iō* and *lan-īu-s*, *alluvi-ō* and *alluv-īu-m*, Goth. *sa ráuda* 'the red one' and *ráuþ-s* 'red', *in-gard-ja* 'member of a household' and *in-gard-ja-* 'in a house' (adj.), O.Fris. *ēth-ma* beside O.S. *āthom* 'breath', O.C.Sl. *ra-mę* beside *ra-mo* 'shoulder'. And it often happens that the two forms do not appear in the same branches of the Indo-Germanic family; e. g. Goth. *ga-juk-a* 'companion' beside Lat. *con-jug-u-s*, Skr. *āy-un-* 'life, time of life' Gr. *αἰ-(F)ών* 'space of time, eternity' and Lat. *ae-vo-m*, Gr. *πυθ-μήν* 'ground, earth' and O.H.G. *bodam* 'ground'.

In Aryan, single cases of the *-o-* *-ā-* *-i-* *-u-* *-ī-* and *-r-* stems were transferred into the inflexion of the *n*-declension; e. g. Skr. nom. acc. neut. *yugāni* (from sing. *yugā-m* 'yoke', on the analogy of *nāmān-i*), gen. pl. Skr. *dēvānām* Avest. *daēvanqm* (Skr. *dēvā-s* 'god'). See J. Hanusz, Über das allmähliche Umsichgreifen der *n*-Declination im Altindischen (Sitzungsberichte der Wiener Akad. d. Wiss. CX.), 1885. Similarly in West Germanic we have O.H.G. gen. pl. *gebōno* (from nom. sing. *geba* f. 'gift').

The words formed with these suffixes are generally masculine or neuter, as Skr. *tákṣ-an-* m. 'carpenter' *yak-án-* n. 'liver'.

A large group of feminines appears in Italic, Celtic, and Germanic consisting of abstract substantives formed with *-ien-* (*-iōn-*); as Lat. *cap-iō men-tiō*, O.Ir. *er-mitiu* 'honour', Goth. *ga-run-jō* 'flood of water' *ra-þjō* 'ratio'. It may be assumed that these *n*-stems, which represent a comparatively modern stratum of

formation, owe their feminine gender to their character of abstract nouns. And all the other feminine *n*-stems which appear in Germanic, are as such undoubtedly modern; they are due to a connexion which grew up between the Indo-Germanic suffixes *-ōn- -iōn- -īn-* and the Germanic feminine forms in *-ō- -iō-* (= Idg. *-ā- -iā-*) and *-ī-*, through the analogy of the relation between Germ. *-un- -ian-* on the one hand and Germ. *-a-* on the other. In many words, where the languages vary between masculine and feminine, the masculine is clearly the older; this is true of Skr. *sī-mān-* 'boundary' (cp. § 117), Gr. *κίον* 'pillar', Lat. *margō*. In Skr. *yōṣān-* f. 'virgin' (beside *yōṣā yōṣānā*) the gender was determined by the sex. In Skr. *vīṣānā tvācam* acc. 'streaming, raining cloud', Gr. *ἀρογῶν θεά* 'adiutrix dea' *τρογῶν πέλεια* 'timid dove', as in the case of Skr. *tanú-ṣ* Gr. *ήδύ-ς*, we see the masculine form used unaltered in connexion with feminine words (§ 110 p. 335). And in other examples there are similar reasons for regarding the feminine gender as a modern developement so that we may fairly assume that nouns formed with *n*-suffixes were originally only masculine and neuter. For the feminine there was the special form with *-ī-*, as Skr. *takṣ-ṇ-ī* Gr. *τέκτ-αινα*, § 110 p. 335.

§ 113. From the earliest times the *n*-suffixes show a very complex variation of Ablaut. What are called the strong cases had *-en- -on- -ēn- -ōn-*, *-ien- -ion- -iēn- -iōn-* (*-iien- -iion-* etc.) and so forth; the weak cases *-n- -ṇ- -in- (-īn-) -iṇ- (-iṇṇ-), -un- (-ān-) -uṇ- (-uṇṇ-), -mn- -mṇ-*.

In the weak cases, the form of the suffix ending in a consonant preceded the case-endings beginning with a sonant, e. g. Skr. gen. sing. *tákṣ-ṇ-as* 'of the carpenter' *nā-mn-as* 'of the name'; and conversely the form ending in a sonant preceded the case-endings beginning with a consonant, e. g. loc. pl. *tákṣ-a-su nā-ma-su* (*-a- -ma-* for *-ṇ- -mṇ-*). Originally also the weak form of the suffix was regular in all extensions of the stem, e. g. *takṣ-ṇ-ī* fem. of *tákṣān-* (§ 110 p. 335), *yuva-śā-s* 'youthful' from *yúv-an-* 'young' (§ 83 p. 251), *śrō-ma-ta-m* 'hearing' beside Avest. *srao-man-* 'hearing' (§ 82 p. 249). This deserves especial

notice, because in several languages the weak forms of the suffix were banished from the actual declension by levelling and other kinds of re-formation, so that it is only in derivatives that we have any evidence to shew that such forms ever existed in the paradigm. Thus we have e. g. Gr. γειτ-ν-ιά 'neighbourhood' beside γειτ-ων -ον-ος, πῑ-ῑ(F)αίνω 'I make fat' for **-uḡ-ḡō-* beside πῑ-ῑ(F)ων -(F)ον-ος, ποι-μν-η ποι-μν-ιο-ν 'herd' ποι-μαίνω 'I pasture' beside ποι-μῑν -μῑν-ος, Lat. *jū-n-ē-x* beside *juv-en-* (*juv-en-is juv-en-um* etc.), *colu-mn-a* beside *colu-men -min-is*, O.H.G. *-birn* 'she-bear' beside *ber-o -in* 'bear', *hliu-mun-t* 'call' beside Goth. *hliu-ma -min-s* 'hearing', Lith. *él-n-i-s* 'stag, elk' beside O.C.Sl. *jelen-* (gen. sing. *jelen-e*) 'stag'.

It is more difficult to determine how the strong forms of the suffix were originally distributed. The following points may be regarded as certain.

1. The nom. sing. masc. (fem.) ended sometimes in *-ō(n)*, and sometimes in *-ē(n)*, cp. Armen. *šun* Gr. *κῑ-ων πῑ-ῑ(F)ων ἄκ-μων*, Lat. *ed-ō men-tiō ter-mō* O.Ir. *cū er-mi-tiu birithe-m* Gall. *casa-mo*, O.H.G. *egg-o skī-mo*, Lith. *szū* for **szū ak-mū* O.C.Sl. *ka-my* and Gr. *αῑχ-ῑν ποι-μῑν*, Lat. *li-en*, O.Icel. *ox-e ux-e* (Skr. *ukṣ-ā*) *skī-me*.

2. The nom. acc. neut. had *-ō(n)* and *-ē(n)* beside *-u -ū*, cp. Goth. *vat-ō na-mō hairt-ōn-a*, Lith. *vand-ū* (originally neut.) and O.C.Sl. *i-me* (cp. Avest. *nā-maṇ* Skr. *nā-mān-i*).

3. A certain number of masculine stems had in the acc. sing. and nom. du. pl. *-en-*, cp. Gr. *αῑχ-έν-α ποι-μῑν-α*, Lith. *pē-men-ī* O.C.Sl. *ka-men-ī* (compare the exceptional forms *ukṣ-āṇ-am aṛya-māṇ-am* in Sanskrit).

4. There were locatives singular in *-en -en-i*, cp. Gr. *αῑχ-έν-ι αῑ(F)έν ποι-μῑν-ι δό-μῑν*, Goth. *aúhs-in* (cp. Skr. *ukṣ-āṇ-i nā-man-i*).

Further the following assumptions seem to me probable.

1. A certain proportion of the masculine stems had *-on-* in acc. sing. and nom. du. pl., cp. Gr. *τέκτ-ον-α πῑ-ῑ(F)ον-α ἄκ-μων-α*, Gall. *Ling-ōn-es* (nom. pl.), Goth. *ah-an ah-man*, Skr. *tákṣ-āṇ-am āś-mān-am*. The variation between *e* and *o* in these

cases, like that between *ē* and *ō* in the nom. sing., depended upon the different position of the accent in the word; we have e. g. nom. pl. *-én-es* and *'-on-es* like nom. sing. *-ĕ(n)* and *'-ō(n)*, cp. Gr. *φο-ίρ-ες* *φο-ήν* as contrasted with *ἄ-φορ-ον-ες* *ἄ-φορ-ων*. Cp. I § 311 p. 248 f.

2. The loc. sing. always ended in *-en* or *-en-i*, even where the strong cases had *-on-*. Notice especially the Goth. loc. *ah-in* *ah-min* contrasted with acc. *ah-an* *ah-man*, as Skr. *rājan-i*: *rāj-an-am*. Compare also Gr. *αἰ(F)έρ* *αἰ(F)ών*.

In certain instances, the *ō* (and *ē*?), which appear in the European languages in other cases than the nom. sing. masc. and the nom. acc. sing. and pl. neut., had perhaps encroached upon the province of the other forms of ablaut before the end of the proethnic period (should we regard this as a dialectic variation in the parent language?); cp. e. g. acc. sing. Gr. *οὐραρ-ίον-α*, Lat. *libell-iōn-em* *rat-iōn-em*, Goth. *ga-run-jōn* *ra-þjōn*, O.C.Sl. nom. pl. *graždān-e* for **gord-ian-e(s)*. Yet this form of the stem cannot have spread through the whole case-system, as we see from such forms as Umbr. abl. *tribris-in-e* *na-tin-e*, O.Ir. dat. *er-mit-in*.

We should compare with this the ablaut of the *-er-* and *-ter-*stems, which is on the whole parallel; see § 120.

Remark. For different views as to the strong forms see Collitz, Bezenberger's Beitr. X 1 ff., and the authorities there cited. It is perhaps not superfluous to insist here that even if Collitz should be right in supposing the existence of Indo-Germanic locatives in *-on(-i)* (cp. Gr. *ἄζονι*), this would not be an argument against the hypothesis that in open syllables Idg. *o* became *ā* in Aryan. For the *n*-stems had originally locatives without *i*, and e. g. Skr. loc. *kar-man* can be derived as regularly from original **-mon* as from original **-men*.

§ 114. The Suffix *-en-*. This was used from the earliest period to form primary *nomina agentis*, as Skr. *tákṣ-an-* Gr. *τέκτ-ων* 'carpenter, worker in wood, architect'. The root-syllable is usually in the weak grade, but the accent varies between the suffix and the root; cp. Skr. *ukṣ-án-* beside *υῤῗṣ-an-*, Gr. *-φο-ήν* (*πολύ-ροην*) gen. *ἀρ-ν-ός* and *γαγ-ών* 'jawbone' beside *ἄρσ-ην* and *στράβ-ων*, Germ. **tuz-én-* beside **tūχ-en-* (O.H.G.

heri-zogo and *heri-zoho*), **rub-én-* (O.Icel. *eið-rofe*) beside **ris-en-* (O.H.G. *betti-riso*). Cp. Kauffmann, Paul-Braune's Beitr. XII 544. The *-en-* stems were substantives when there were adjectives in *-o-* parallel to them, and hence in some groups of languages, particularly in Germanic, this suffix acquired the function of forming substantives from any given adjective; it had the effect of specialising the idea conveyed by the adjective, by applying it to some one person or thing that possessed the particular quality in an exceptional degree. Hence it is often found in personal names, whether they were formed from a noun consisting of a single stem, or obtained by abbreviation from a compound consisting of two stems (cp. § 18 p. 34 and Osthoff, Forsch. auf dem Geb. der Idg. Nominalstambildung, II 50 f.). Thus Gr. *στραβ-ός* 'squinting': *στράβ-ων* 'squinter', *Στραβ-ων* proper name, Lat. *multi-bib-u-s*: *bibō*, *rūf-u-s*: *Ruf-ō*, Goth. *raup-s* 'red': *raud-a* 'the red one', Lith. *rūd-a-s* 'reddish brown': *rud-ũ* m. 'autumn'. Thus *-en-* came to be used as a secondary suffix, as Avest. *mar^e-t-an-* 'mortal' (subst.) beside *mar^e-ta-* 'mortal', Gr. *τρή-ρ-ων* *πέλεια* beside *τρή-ρός* 'timorous, shy', Lat. *Ca-t-ō* beside *ca-tu-s*. Cp. further Lat. *hom-ō* Goth. *gum-a* O.Lith. *žm-ũ* 'human being, man', properly 'the earthly one', beside Skr. *kṣám- jm-* Avest. *z^em-* Gr. *χθών* Lat. *hum-u-s*, Gr. *γαστρ-ων* 'glutton' from *γαστήρ* 'belly', Lat. *cachinn-ō* from *cachinnu-s*, *capit-ō* from *caput*, Goth. *vaurstō-a* 'worker' from *vaurstō* 'work'.

Almost all the neuter forms containing *-en-* denoted some part of the body (cp. § 57 p. 105). In some of them, as we shall see *-en-* was a secondary suffix.

Indo-Germanic. Masculine. Skr. *tákṣ-an-* (*-an-am*) Gr. *τέκτ-ων* (*ον-ος*), beside Skr. *tákṣ-a-ti* 'does carpenter's work'. Skr. *ukṣ-án-* (*-án-am*) Mod.Cymr. *ych* (pl. *ychen*) Goth. *auhs-a* 'ox', orig. 'the impregnator', beside Skr. *ukṣ-á-ti* 'emanat, emicat'. Avest. *arš-an-* (*-án-em*) 'male, man', Skr. *ṛṣa-bhá-s* 'bull', for **ṛs-ṇ-bho-s*, Armen. gen. *aṛn* 'of the man' (nom. *aṛ*), Gr. *ἄρσ-ην* *ἄρρ-ην* Ion. *ἔρσ-ην* (*-εν-ος*) 'male', orig. 'making fruitful', beside Skr. *árṣ-a-ti* 'flows, streams'; cp. Skr. *vṛṣ-an* (*-an-am*) 'man, bull', beside *várṣ-a-ti*

makes to stream, rains'. **kū-en-* **kuy-en-* (**kū-n-* **kū-ŋ-* **kuy-ŋ-*) 'dog' (according to Benfey 'that which produces young often and in great numbers' compared with Gr. *κύ-ος* 'fetus' Skr. *śī-śu-ṣ* 'young creature'): Skr. *śv-án-* *śuv-án-* (acc. sing. *śv-án-am* gen. sing. *śú-n-as* loc. pl. *śv-á-su*), Armen. *sun* gen. *san* (I § 405 p. 301), Gr. *κύ-ων* (voc. *κύ-ον* gen. *κυ-ν-ός*), O.Ir. *cū* (gen. *con*), Lith. *szū* (gen. *szu-ŋ-s*). Avest. *spas-an-* 'watchman' O.H.G. *speho* 'spy', ✓ *spek-*. Lat. *ed-ō* (-*ōn-is*), O.H.G. *egg-o* 'devourer', ✓ *ed-*. Lat. *as-sedō cōn-sedō* (-*ōn-is*), O.H.G. *ana-sezzo* 'assessor' O.Icel. *drōtt-sete* 'lord high steward', ✓ *sed-*.

Denominatives. *hom-ō* (-*ōn-is* -*in-is*) Goth. *gum-a* O.Lith. *žm-ũ¹* 'human being, man', see above. Gr. *ζούγ-ων-ερ* (= Att. **ζυγ-ων-ες*). *βόες ἐργάται*. *λάκωνες* Hesych., Goth. *ga-juka* 'comparison', beside *ζυγ-ό-ν* *juk* 'yoke'.

In some Indo-Germanic words in which *-en-* is primary there is no trace of any original use as *nomen agentis*. **iū-en-* **iū-n-* **iuy-ŋ-* 'young, young man': Skr. *yúv-an-* (acc. sing. *yúv-án-am* gen. sing. *yú-n-as* loc. pl. *yúv-a-su*), Lat. *juv-en-* (-*en-is*), cp. also the form **iuy-ŋ-kó-s* which is more widely used, § 83 p. 251; the word is no doubt connected with Lith. *jaũ* O.C.Sl. *ju* 'already' see § 66 ad fin. p. 149²). Skr. *ás-an-* 'stone, sling-stone', Gr. *ἄκ-ων* (-*ον-ος*, by a change of declension, see p. 350) 'javelin', cp. also Gr. *ἄκ-όν-η* 'whetstone' and *ἄκ-αῖνα* 'point, thorn'. Skr. *mārdh-án-* m. A.S. *mold-a* m. 'head' (ground-form **m̥dh-en-* **m̥dh-en-*, cp. also I § 306 p. 243). Skr. *plih-án-* *plih-an-* *plih-an-* Lat. *li-en* (-*ēnis*) 'spleen' are among the neuter words which denote parts of the body.

Neuter. Skr. *ud-án-*, Goth. *vat-ō*, Lith. *vand-ũ* and *und-ũ* (which have become masc.), Gr. *ὔδ-α-το* with *α* = *ŋ* (nom. *ὔδ-ωρ*), 'water'. Skr. *údḥ-an-* (nom. *údḥ-ar*) Gr. *οὔθ-α-το* (nom. *οὔθ-αρ*) 'udder'. Skr. *yak-án-* Gr. *ῆπ-α-το* (nom. *ῆπ-αρ*) Lat. *jec-in-* (in

1) *žm-onà* 'wife' and *žm-ónes* 'human beings' are not parallel to this but contain the suffix of the Latin *hūm-ānu-s* (cp. § 160).

2) I see little probability in Danielsson's assumption (Gramm. and etymol. Stud. I 49) that the word is merely an ablaut-variant of Gr. *αι(f)ών* Skr. *áyun-*.

jecin-or-is etc., the *-or-* having forced its way in from the nom. *jec-ur*, cp. also I § 431 c. p. 321) Lith. *jekn-os* f. pl. 'liver'. *-en-* was secondary in the word for head: Skr. *śīrś-an-* n. Gr. *κάρᾱ* n. for **καρᾱσ-α* (*-a* = *-y*), *ἀμφι-καρᾱνο-ς* 'two-headed' for **καρᾱσ-ν-ο-*, *κάρᾱνο-ν* 'head' for **καρᾱσ-ν-ο-ν* (cp. the Author, Morph. Unt. II 173 f. 227 ff., Solmsen, Kuhn's Ztschr. XXIX 69, Danielsson, Gramm. und etymolog. Stud. I, 1888, p. 40 ff.), Lat. *cernuo-s* for **cers-n-uo-s*, O.Icel. *hjars-e* m. 'head'; the words contain a neuter stem **ker-es-* (**k̑yr-es-* **kr-es-*), cp. Skr. *śīras-Av. sar-ah-* 'head' Lat. *cerebru-m* for **ceres-ro-* (I § 570 p. 428) and below § 134. In like manner, Gr. *οὔατο-* n. for **oys-y-to-* Goth. *áus-ō* n. 'ear' no doubt implies a neuter *-es-*stem, which appears in Greek in the nom. *οὖς* Dor. *ὠς*, if this represents **oys-os* and not **oys-os* (O.C.Sl. *uch-o*) (J. Wackernagel, Kuhn's Ztschr. XXIX 141, Solmsen ibid. 92). Skr. *akṣ-án-* Armen. *ak-n* Goth. *aug-ō* (cp. I § 444 Rem. 3, p. 331) 'eye', O.C.Sl. *ok-n-o* n. 'window' ¹). For the use of *-i*-stems to supplement these neuters in *-en-* as Skr. *áskṣ-i* gen. *akṣ-ṇ-ás*, see § 93 p. 279. For the nominatives in *r*, like Skr. *údḥ-ar*, see § 118.

If the Greek infinitives in *-ειν-* (Dor. Lesb. *ην*), like *φέρειν* 'to bear', are to be derived from **-εσεν* (which is more in accordance with known phonetic laws than to assume they came from **-ε-φεν*), we may infer an Indo-Germanic inf. in **-s-en* **-s-en-i*, which was loc. sing. Compare the Skr. inf. in *-s-an-i*, as *nē-ṣ-án-i* from *nē-* 'lead', *gr-ṇī-ṣ-án-i* beside *gar-* (pres. *gr-ṇá-mi*) 'praise'.

Aryan. Masculines (and the few Feminines that occur) are rare in Aryan as compared with the classical languages, Celtic and Germanic. Skr. *tákṣ-an-* 'carpenter' Avest. *taš-an-*

1) The *ṣ* of Skr. *akṣ-án-* presents certain difficulties. It has been assumed that this is also an extension of an *-es-*stem (cp. O.C.Sl. *oko* gen. *očes-e*); but this theory is not supported by Avest. *aši-* = Skr. *akṣi-* (cp. I § 401 with Rem. 1 p. 296 f., § 556, 1 p. 411; it must be admitted however that *ṣ* is sometimes written for *xṣ*, see Bartholomae, Handbuch § 100 Rem. 2 p. 43) nor by Gr. Boeot. *ὤκραλλο-ς* 'eye' (cp. I § 554 p. 408). Compare also I § 427 Rem. 2 p. 314.

'sculptor', see above p. 345. Skr. *ukṣ-án-* Avest. *uxš-an-* 'ox', see above p. 345. Skr. *śv-ín-* Avest. *sp-an-* 'dog' see above p. 346. Skr. *yúv-an-* Avest. *yv-an-* (read *yuvan-*, Bartholomae's Hdb. § 91 a p. 40) 'young, young man'; see above, p. 346. Skr. *ás-an-* Avest. *as-an-* 'stone'; see above, p. 346. Skr. *rāj-an-* 'king' beside *rāj-án-* 'government': cp. O.Ir. *rīgain* § 110 p. 335; cp. also Lat. *rēgnu-m* § 65 Rem. p. 139. Skr. *mūrdh-án-* (*-án-am*) 'head': A.S. *mold-a*, see above p. 346. Skr. *vi-bhv-án-* *vi-bhv-an-* 'excellent' beside *vi-bhū-* and *vi-bhv-a-*, words of similar meaning. Avest. *arš-an-* 'male, man' O.Pers. *xšayāršan-* 'Xerxes' (for *xšaya-* 'ruler' + *aršan-*); see above, p. 345.

In Avestic there are a few examples of *-en-* in secondary use: *mar't-an-* beside *mar'-ta-* 'mortalis'. *puṣr-an-* 'father of a family' beside *pu-pra-* 'son'. *vīs-an-* 'member of a clan' beside *vīs-* 'clan'. *hazarəh-an-* 'robber' beside *hazah-* 'deed of violence'. Forms like these originally existed in Sanskrit¹⁾, but they were driven out by the forms in *-in-*, see § 115.

Remark 1. In Sanskrit, the nom. sing. in *-ā* sometimes led to a transference to the *ā*-declension; e. g. *plih-ā-* f. beside *plih-an-*. Cp. *-mā* § 117 Rem. 2, *-tā* § 122 Rem. 1, and Gr.Ion. *μάτηρ*, which in the oldest period was neuter (see p. 347 above), but appears later as feminine (gen. *μάτηρ*; etc.).

Neuters. Skr. *ud-án-* *údh-an-* and other words; see above, p. 346. Skr. *mah-án-* 'size': compare no doubt Gr. *μέγ-α* 'magnum', which must be a substantive used adjectivally (*μέγας*; *μέγαν* are later forms). *dadh-án-* 'sour milk' (nom. *dádhi*): cp. Pruss. *dadan* 'milk' (an *a*-stem?). *asth-án-* 'bone' (*ásthi*), *sakth-án-* 'thigh' (*sákthi*), *as-án-* 'mouth', *dōṣ-án-* 'fore-arm', *cákṣan-* 'eye' (cp. *akṣ-án-*). *áh-an-* 'day' (nom. *áhar*), *gámbh-an-* 'depth'. Avest. *ay-an-* 'day' (beside *ay-ar-*), *nənh-an-* 'nose'.

For the Sanskrit infinitives in *-s-an-i*, see p. 347 above.

Armenian. *ar'n* 'of the man' (Avest. *arš-nō*), see p. 345 above. *šun*, gen. *šan*, 'dog', see p. 346 above. *akn*, gen. *akan*,

1) The assumption of a nom. sing. *krāṇá* in Vedic (stem *krāṇ-an-*), from *krāṇá-* 'working, active', is based upon a wrong view of the particular passages where the word occurs.

'eye', see p. 347 above. *gar̃n*, gen. *gar̃in*, 'Lamb' for **ũgr-en-*: Skr. *úr-an-a-s* 'ram' (transferred to the *o*-declension), Gr. *-fρ-ην* in *πολύ-ρρην* 'rich in sheep' nom. *ἀρ̃ήν* gen. *ἀρ̃ν-ός* etc. 'ram' (I § 290 p. 232, § 291 p. 233). *ελ̃n*, gen. *ελ̃in*, 'stag': O.C.Sl. *jel-en-* (gen. *jelen-e*) 'stag'; it is also found in the extended forms Gr. *ἐλ-α-φο-ς* 'stag' *ἐλλό-ς* 'young stag' for **ἐλ-ν-ο-ς* (I § 204 p. 170 f., II § 78 p. 216), Mod.Cymr. *elain* 'hind', Lith. *él-n-i-s*, gen. *élnio*, 'stag, elk'.

Greek. The masculine (rarely feminine) *-en-* stems are numerous. Through the generalisation of certain forms of the suffix five types of inflexion arose: *ἀρ̃ν-* 'ram' (acc. *ἄρ̃ν-α* gen. *ἄρ̃ν-ός* ¹⁾); *ἀδ̃-έν-* 'gland' *ἄρσ-εν-* 'male' (*ἀδ̃-έν-α* *-έν-ος*, *ἄρσ-εν-α* *-εν-ος*); *ἀηδ̃-όν-* 'nightingale' *τέκτ-ον-* 'carpenter' (*ἀηδ̃-όν-α* *-όν-ος*, *τέκτ-ον-α* *-ον-ος*); *πευθ̃-ῆν-* 'inquirer' (*πευθ̃-ῆν-α* *-ῆν-ος*); *ἀγ̃-ῶν-* 'struggle' *κλύδ̃-ων-* 'wave' (*ἀγ̃-ῶν-α* *-ῶν-ος*, *κλύδ̃-ων-α* *-ων-ος*). No difference of function however was attached to these different forms of the suffix.

Nomina agentis. *τέκτ-ων*, *ἄρσ-ην*, *κν̃-ων*, see above p. 345 f. *ἀρηγ̃-ών* (*-όν-*) 'helping, helper'. *ψευθ̃-ών* (*-όν-*) 'liar, slanderer'. *φαγ̃-ών* (*-όν-*) 'jawbone' (*φαγ̃-εῖν* 'to eat'). *τρογ̃-ών* (*-όν-*) f. 'turtle-dove' (*τρούζειν* 'to coo'). *κραγγ̃-ών* (*-όν-*) f. 'jay' (*κράζω* 'I cry'). *αἶθ̃-ων* (*-ον-* and *-ων-*) 'burning'. *στράβ̃-ων* (*-ων-*) 'squinter'. *γν̃ίφ̃-ων* (*-ων-*) 'niggard'. *στέπ̃-ων* or *στέμπ̃-ων* (*-ων-*) 'staff' (*στέμπ̃-τω* 'I support'). *κραυγ̃-ών* (*-ῶν-*) 'cryer, wood-pecker'. *πευθ̃-ήν* (*-ῆν-*) 'inquirer'. Often it is used as a denominative suffix, denoting one who stands in some special relation to what is denoted by the original word. *τρήρ̃ων* (*-ων-*) epithet of the dove, 'little trembler' beside *τρήρ̃ος* 'timorous'. *πῶρδ̃-ων* (*-ων-*) 'pēditor', beside *πορδί* 'pēditum'. *κίβδ̃-ων* (*-ων-*) 'workman who purifies metals from the dross', beside *κίβδη* 'dross'. *δρόμ̃-ων* (*-ων-*) 'runner', term applied to a light kind of ship and a kind of lobster, beside *δρόμο-ς* 'course'. *γάστρ̃-ων* (*-ων-*) 'glutton', beside *γαστήρ* 'paunch'. *γνάθ̃-ων* (*-ων-*) 'thick-cheek, puff-cheek', beside

1) The nom. *ἀρ̃ήν* occurs in an Att. inscr. earlier than 450 B. C., C.I.A. I 4, 22.

γνάθος 'cheek'. *φύσκων* (-ων-) 'fat-paunch, pot-belly', beside *φύσκη* 'stomach, great-gut'. We should add a number of personal names, such as *Στράβων* (*στράβων*, *στραβός*), *Χρέμων* (cp. O.H.G. *Grimmo*), *Ἀγάθων* (*ἀγαθός*), *Φίλων* (*φίλος*), *Δρόμων* (*δρόμων*, *δρόμος*), *Λύκων* (cp. O.H.G. *Wolfo*).

Other *-en-*stems are more isolated, and it is not clear how they are to be connected with the different uses of the suffix which we can trace in the parent language. Acc. *πύκν-α* gen. *πυκν-ός* (nom. *πνύξ* is a new formation) a place of public assembly in Athens (cp. the Author, *Morph. Unt.* II 169). *τέρ-ην* (-εν-) 'tender'. *αὐχ-ήν* (-έν-) 'neck'. *εἰκ-ών* (-όν-) 'image'. *σταγ-ών* (-όν-) f. 'drop'. *πυγ-ών* (-όν-) f. 'length of an ell'. *ἀγ-ών* (-ῶν-) 'contest'. *κλύδ-ων* (-ων-) 'wave, billow'. *λειχ-ήν* (-ήν-) 'scab, eruption'.

In consequence of the similar termination of the nom. -ων, stems of this kind sometimes followed the inflexion of stems in -οντ-. *ἄκ-ων*, see above, p. 346. *Θεράπ-ων* (-οντ-) 'servant' beside *Θεράπ-ν-η* *Θεράπ-αινα* 'maid-servant'. *λέων* (-οντ-) 'lion' beside *λεό-παρδο-ς* 'leopard' (like *αἶμο-βαφής* *ἀκμό-θετο-ν* § 112 p. 340), *λέαινα* 'lioness' and Lat. *leō* (-ον-). Cp. the Author, *Morph. Unt.* II 168 f. 197.

The neuters were associated with the neuter stems in -μεν- and -μεν- and all alike underwent a change of inflexion due originally to their extension by the suffix -το-. See § 82 p. 250. *κάρα* 'head' for **καρᾶ-α* gen. *καρᾶ-τός*, *κρή-δεμνο-ν* 'head-band'; *ῥῥ-α-τος*, nom. *ῥῥ-ωρ* 'water'; *οὔθ-α-τος*, nom. *οὔθ-αρ* 'udder'; *ῥπ-α-τος*, nom. *ῥπ-αρ* 'liver'; *οὔ-α-τος* *ὠ-τός*, nom. *οὔς* 'ear'; see p. 347 above. *ἄλειφ-α* (also *ἄλειφ-αρ*), gen. -α-τος, 'oil for anointing', like Lat. *ungu-en*.

Infinitives in -ειν for -ειν-; for these forms see above, p. 347. It is possible, but it can hardly be proved, that the Doric infinitives like *φέρειν* are the locatives of an abstract root-noun in -εν- (*ἄγ-εν* for instance, beside *ἀγ-ών*, as *αἰ-(F)έν* beside *αἰ-(F)ών*, § 116).

Italic. Masculine (rarely feminine) *-en-* stems are numerous. Lat. *car-ō* *car-n-is* f., Umbr. *kar-u* 'pars' *kar-n-e* 'carne

carni' Osc. *car-n-eis* 'partis', beside Umbr. *kar-tu* 'dividito, distribuito': O.Ir. *car-n-a* 'flesh'. Lat. *hom-ō -ōn-is* and *-in-is*, Umbr. *hom-on-us* (*ō*) 'hominibus' Osc. *humuns* (*ū*) nom. 'homines': Goth. *gum-a* etc., see p. 346. Umbr. *abr-un-u* (*ū*) 'aprum' (like Lat. *burdō* beside *burdu-s* and the like); cp. Lat. *aprun-culu-s*. Osc. *sverrun-éi* (*ū*) dat. sing. the title of a magistrate.

If we except *carō*¹⁾, the different forms of the suffix were levelled in Latin in such a way that all the cases but the nom. sing. had either *-en-* *-in-* or *-ōn-*. *-en-* is found only in *juven-*, but there it is not phonetically regular, see I § 65 Rem. 3 p. 53. We cannot determine how far Lat. *-in-* represents Idg. *-en-* or Idg. *-on-* respectively.

In Latin it forms primary *nomina agentis*, all with *-ōn-*. *ed-ō ed-ōn-is*, *as-sedō*, see p. 346 above. *in-cub-ō*: O.H.G. *hūf-o* 'heap'. *ger-ō*. *vol-ō*. *bib-ō*. *rap-ō*. *mand-ō*. *err-ō*. *-ōn-* is also found in denominatives, some of which are also *nomina agentis*, while some denote persons or things which stand in some other special relation to the thing denoted by the original word; such formations were suggested by groups of words like *cachinn-ō* beside *cachinnāre cachinnu-s*, *fābul-ō* beside *fābulārī fabula* and others. Examples are: *gerr-ō* from *gerrae*. *simpul-ō* from *simpulu-m*. *mer-ō* from *meru-m*. *linte-ō* from *linteu-m*. *nebul-ō* from *nebula*. *bucc-ō* from *bucca*. *cox-ō* from *coxa*. *petr-ō* from *petra*. *strig-ō* from *striga*. The same *-ōn-* forms many personal names, as *Capit-ō* from *caput*, *Nās-ō* from *nāsu-s*, *Cat-ō* from *catu-s*, *Rūf-ō* from *rūfu-s*. The following nouns denoting inanimate objects are nearly related to these appellatives: *pīsō* (*-ōn-* in oblique cases and so in all these words) 'mortar' (*pī(n)sere*), *runc-ō* 'hoe' (*runcāre*), *sabul-ō* 'coarse sand' from *sabulu-m*, *pēr-ō* 'a boot rather too loose at the top' from *pēra* (cp. O.H.G. *gēro* from *gēr* and the like p. 354); and no doubt *pont-ō* 'pontoon' from *pōns*. — In *hom-ō -ōn-* gave way to *-in-*, when the consciousness of its original meaning (see p. 346) had died out.

1) Cp. also *cor-n-* in *cor-n-ix* beside Umbr. *cur-n-ac-o* 'cornicem' Gr. *κορυμβος* 'crow'.

Other *-en*-stems are more isolated in point of meaning. *juv-en-* (nom. *juven-i-s*, see § 93 p. 281), cp. *juven-cu-s* Umbr. *ivengar* pl. 'iuvencae' § 83 p. 251, *juven-ta* § 80 p. 239, *jūn-t-x* § 110 p. 335: Skr. *yūv-an-* etc., see p. 346. *pect-en* (*-in-*), *li-en* (*-ēn-*) (Skr. *plīh-án-*, p. 346), perhaps the Idg. nom. ended in **-ēn*; cp. also *sanguen*, the older nom. of *sangu-in-is* etc., afterwords replaced by **sanguin-s*, whence *sanguīs*. *turb-ō* (*-in-*). *ōrd-ō* (*-in-*). Some few were feminine, as *aspergō* (*-in-*), *compāgō* (*-in-*), *grandō* (*-in-*, also m.), *margo* (*-in-*, also m.), *virgō* (*-in-*). Lastly, there are some masculines formed with *-ōn-*, which may or may not be connected with the class of *-ōn-* forms just discussed, as *cūdō*, *carbō*, *truō*.

Neuters. *ungu-en* (*-in-*) Umbr. *um-en* 'ungen' (*umen* is otherwise explained by Pauli, *Altital. Stud.* V 102 f.): O.Ir. *imb imm*, gen. *imme* (stem *imb-en-*) n., O.H.G. *anch-o* m. (no doubt originally neuter) 'butter'. *ingu-en* (*-in-*): Gr. *ἀδ-ήν* gen. *ἀδ-ίῃ-ος* 'gland', common ground-form **ṛg-en-*, cp. also O.Icel. *okk-r* 'swelling'. *pollen* (*-in-*), originally **pol-en* **pol-n-is*; see I § 208 p. 175. *jecur* **jecin-is* produced the form *jecin-or-is*; see above, p. 346 f.

Old Irish. The masculines (and the rarer feminines) have partly *-on-* (Gall. *Lingon-es*, *Senon-es* and the like), partly *-ōn-*. We do not find any thing like a large group of *nomina agentis*.

The following have pr. Celt. *-on-*, nom. sing. in *-ō* (cp. *-tiu* for *-tiō*, § 115). *cū* (pl. *coin*) Mod.Cymr. *ci* (pl. *cwn*) 'dog': Skr. *śvā* etc., see p. 346 above. *esc-ung* 'eel' ('bog-snake'): cp. Lat. *angu-en* n. beside *angui-s*. *derucc* (gen. *derc-on*) 'acorn'. *Miliuc* (gen. *Milc-on*), *Glaisiuc*, proper names. Cp. also *triath*, gen. *trethan*, 'sea' = Gr. *Τρίτ-ων*.

The following have pr. Celt. *-ōn-*, nom. sing. in **-ōn-s* (cp. Osc. *-iuf* *-íf*, § 115 Rem. p. 360). *ar-u* (pl. *arain*) 'kidney' is no doubt to be compared with Lat. Praenest. *nefrōn-ēs* Lanuv. *nebr-un-din-ēs*, O.H.G. *nior-o* (pr. Germ. **ne(χ)ur-en-*) 'kidney', even though the form of the root-syllable in Celtic (Mod.Cymr. *airin*) is difficult to explain. *lecc-o* 'cheek'. *id-u* 'pangs of travail'.

fiad-u 'witness'. *lach-u* 'duck'. *Ān-u* 'mater deorum Hibernensium'. Many of the substantives of this group were feminine; but I do not know how far the gender has been ascertained in particular instances.

It is not probable that *ing-e* 'nail' (gen. *ingan*) is a formation of the same sort as *men-me* 'mens' (gen. *menman*) for **-men-s* (§ 117).

Remark 2. "It can scarcely be maintained that the word for 'nail' in O.Ir. was an *n*-stem. In any case Stokes' paradigm [Bezzenb. Beitr. XI 92] does not agree with the facts in Old Irish. The following is much more likely; — Insular Celt. **engwīnā* Cymr. *ewin* f., O.Ir. nom. *ingen*, a gloss to 'ungula' (hitherto taken as gen. sing.), dat. *ingin*, dat. pl. *ignib* for **inginaib*. In Mid.Ir. the word was declined, though not entirely, as an *n*-stem. The nom. sing. was *inga inge* just as *persa* = O.Ir. *persan* (persona). For the nom. pl. we still have *ingne*, which is regularly developed from **ingina*, but cannot be satisfactorily explained as any case of the *n*-inflexion". Thurneysen.

Neut. *imb* 'butter': Lat. *ungu-en* etc., see above p. 352.

Germanic. Here the *-en*-suffix attained its widest use in a mass of new formations. Its fertility is especially remarkable in the class of *nomina agentis* and the nouns connected with them, in which *-en-* appears as a secondary suffix with what may be called an 'individualising' function, i. e. that of converting adjectives into substantives. Any adjective could be so converted by adding *-en-* to its stem. These derived forms were brought into close syntactical connexion with the definite article (demonstrative-stem **to-*), and so arose what is known as the 'weak' declension of adjectives. Further Idg. and Germ. *-ōn-* was associated with Germ. *-ō-* (Idg. *-ā-*) on the analogy of the relation between Germ. *-an-* and *-a-*, and so a weak declension was developed for the adjectival *ā*-stems parallel to that of the *o*-stems.

Masculine. *Nomina agentis*. Goth. *áuh-s-a* O.H.G. *ohs-o* O.Icel. *ox-e ux-e* 'ox': Skr. *ukṣ-án-* etc., see p. 345 above. O.H.G. *speh-o egg-o -sezz-o* see p. 346 above. Goth. *skul-a* O.H.G. *scol-o* 'debtor'. Goth. *un-vita* 'ignorant one, fool' O.H.G. *wigg-o* 'knower, sage'. Goth. *nuta* 'fisher'. O.H.G. *heri-zogo* O.Icel.

her-toge 'duke' pr. Germ. **tuz-én-* and O.H.G. *heri-zoho* pr. Germ. **tūx-en-*. O.H.G. *bot-o* O.Icel. *boð-e* 'messenger'. O.H.G. *geb-o* O.Icel. *-gjaf-e* 'giver'. O.H.G. *wār-queto* 'veridicus' O.Icel. *hrōðr-kveðe* 'praedicator laudis' pr. Germ. **kved-én-*. Mid.H.G. *schad-e* O.Icel. *skað-e* 'damager' pr. Germ. **skāp-en-*. Goth. *han-a* O.H.G. *han-o* 'cock', beside Lat. *can-ere*. O.H.G. *sceid-o* 'sequester'. Further we find denominative forms, some of them also *nomina agentis*, and some denoting persons or things which stand in some other special relation to the idea of the original word (including many epithetised compounds with *ga-*). Goth. *gum-a* O.H.G. *gomo* O.Icel. *gum-e* 'human being, man': Lat. *hom-ō* etc.; see above, p. 346. Goth. *vaúrstv-a* 'worker' from *vaúrstv* n. 'work'. Goth. *spill-a* 'announcer' from *spill* n. 'tale'. Goth. *ga-razna* 'neighbour' from *razn* 'house'. O.H.G. *stiur-o* O.Icel. *stjör-e* 'steersman' from *stiura* f. 'rudder'. O.H.G. *urteil-o* 'judge' from *urteil* 'sentence'. O.H.G. *hūw-o* 'spouse' O.Icel. *hý-e* 'attendant' beside Goth. *heiva-* 'house'. O.H.G. *heim-o* 'cricket on the hearth' from *heim* 'house, home'. O.H.G. *gi-lanto* 'fellow-countryman' from *lant* 'country'. Further we have names of peoples, such as *Teutōn-es*, O.H.G. *Sahso*, *Franko*, and names of persons, such as O.H.G. *Wolfo*, *Harto*, *Berhto*. The following have a close connexion with the *nomina agentis*: A.S. *drop-a* 'drop' ('dripper'), O.H.G. *chleb-o* 'sticker, glue' and the like.

The following are substantives formed from adjectives: Goth. *liuta* 'hypocrite' from *liut-s* 'hypocritical', *veiha* 'priest' from *veih-s* 'holy', O.H.G. *wīzago* 'soothsayer' from *wīzag* 'marking, surmising', and others.

Through the popularity of the *-n*-declension substantival *o*-stems denoting persons were sometimes made into *-en*-stems without any alteration of meaning, e. g. Goth. *svaithra* beside O.H.G. *soehur* Skr. *śvāśura-s* Gr. *ἐνυρό-ς* 'father-in-law'.

We find another class of denominatives, akin to those already discussed, denoting objects of the same shape or form as the thing described by the original substantive (cp. Lat. *sabulō*, *pērō* p. 351). O.H.G. *gēr-o* O.Icel. *geir-e* 'wedge-shaped piece, instrument, or territory', from *gēr* 'spear'. A.S. *mūd-a*

O.Icel. *munn-e* 'orifice', beside *muð* 'mouth'. Mid.H.G. *kamb-e kamm-e* 'comb-like instrument', from *kam* 'comb'. O.Icel. *nagl-e* 'nail', from *nagl* 'finger-nail'. O.Icel. *odd-e* m. 'triangle', from *odd-r* 'spear-point'. Add certain words in *-ðn-* (f.), as O.H.G. *bart-a* 'axe, broad-axe' beside *bart* 'beard'. Cp. Kluge, Nomin. Stammbildungslehre § 79 p. 37.

The most numerous of the remaining substantives are the abstract nouns and the names for parts of the body. Abstract nouns: Goth. *ah-a* 'thought, understanding', *ga-taira* 'clef', O.H.G. *scad-o* O.Icel. *skað-e* 'harm', O.H.G. *smerz-o* 'pain', *gi-feho* 'joy'; add also some words in *-ðn-* (f.), as Goth. *lub-ð* 'love', *brinn-ð* 'fever', O.Icel. *tak-a* 'taking in, assumption'. One or two of the names for parts of the body are proethnic: A.S. *mold-a* 'head' see p. 346, O.Icel. *hjars-e* 'head' see p. 347, O.H.G. *nior-o* (O.Icel. *nýr-a* n.) 'kidney'; see p. 352. With these, others were associated: Goth. *lōf-a* 'flat of the hand', O.H.G. *nabol-o* O.Icel. *nafl-e* 'navel', O.H.G. *dūm-o* (cp. § 72 p. 171). Also feminine forms in *-ðn-* as O.H.G. *gall-ā* 'gall' (on the other hand A.S. *zealla* is m.), Goth. *tugg-ð* O.H.G. *zung-a* O.Icel. *tung-a* 'tongue', O.H.G. *zēh-a* 'toe'.

Feminine. The original stems in *-ðn-* were associated in Germanic with those in *-ā-*, not so intimately indeed as were the *-iðn-* stems, but closely enough to be attracted into the feminine gender, though we must observe that some of the abstract nouns in *-ðn-*, like those in *-iðn-*, may have been feminine before they passed into Germanic. On their analogy feminines in *-ðn-* were formed at will from the masculine *-en-* stems which denoted living beings. O.H.G. *maga-zoha* 'nutrix' from *-zoho -zogo*. O.Icel. *kveld-riða* 'noctivaga, strix' from *-riðe*. Goth. *ga-raznō* 'neighbour (f.)' from *ga-razna*. O.H.G. *gi-mahha* 'wife' from *gi-mahho*. O.H.G. *hīwa* 'wife' from *hīwo*. O.H.G. *wīzaga* 'sooth-sayer (f.)' from *wīzago*. Goth. *svaihrō* 'mother-in-law' from *svaihra*. Goth. *qinō* O.Icel. *kona* 'woman' contrasted with Gr. γυνή, Goth. *viduvō* 'widow' contrasted with Lat. *vidua*. As an example of the weak adjectives we may take Goth. *blind-ð* beside masc. *blind-a* 'caecus'.

Neuters, in the genitive and other cases always with *-en-*. Goth. *vat-ō* 'water', Goth. *áus-ō* O.H.G. *ōr-a* 'ear', Goth. *áug-ō* O.H.G. *oug-a* 'eye', see above p. 347. Goth. *hairt-ō* O.H.G. *herz-a* 'heart'. O.H.G. *wang-a* 'cheek'. O.Icel. *nýr-a* 'kidney' beside O.H.G. m. *nior-o* (on the other hand O.Icel. *hjars-e* m. beside Skr. n. *śirś-án-*, cp. also O.H.G. *anch-o* m. 'butter' beside Lat. *ungu-en* n. O.Ir. *imb* n.). Along with these names for parts of the body we find a few other substantives, as Goth. *þairk-ō* 'hole', *áuga-daúrō* 'window' and *kaúrnō* 'corn' (a derivative of *kaúrn*, parallel to masculines like O.H.G. *gēr-o* and to feminines like O.H.G. *bart-a* p. 354 f.). In the weak adjectives: Goth. *blind-ō* beside masc. *blind-a*.

Balto-Slavonic. Here the *-en-* stems are rare; a large part of them have fallen out of the *n*-declension through various processes of re-formation. Generally the suffix appears in the form *-en-* in all cases except the nom. sing.

Lith. *el-n-* in *éln-i-s* 'stag, elk' O.C.Sl. *jelen-* m. (nom. *jelen-ī*) 'stag': Armen. *eln* etc., see p. 349 above. Lith. *szirsz-ũ* m. O.C.Sl. *srīš-en-ī* m. 'horse-fly, hornet', common ground-form **hys-en-*: cp. O.H.G. *hornaz* 'hornet' pr. Germ. **χurz-n-ata-z* (I § 303 p. 240). From an original **dei-en-* (**dij-en-* **dī-en-*) **di-n-* (**dei-n-*) 'day' were developed Lith. f. *dē-n-à* Pruss. acc. *dei-n-a-n* O.C.Sl. gen. *dī-n-e* (nom. *dī-nī* m.): cp. Skr. *dīn-a-m* Lat. *nūn-dinae* (J. Schmidt, Kuhn's Ztschr. XXV 23).

Lith. *szũ* (aus **szũ-ũ*, I § 184 p. 160), gen. *szu-ñ-s* acc. *szũ-n-ī*, m. 'dog', also *szun-i-s* m.: Skr. *śv-ā* etc., see p. 346 above. *rud-ũ* m. 'autumn' beside *rūd-a-s* 'reddish-brown': cp. Lat. *Rūf-ō* Goth. *rāud-a*, see p. 345 above. We have an old neuter in *vand-ũ* m. 'water' (Lett. *ūd--e'n-s*): Skr. *ud-án-* etc., see above p. 346.

O.C.Sl. *step-en-* m. 'step', *kor-en-* m. 'root', nom. *stepen-ī* *koren-ī*. *vod-a* f. 'water' (inflected as an *a*-stem) perhaps comes from an Indo-Germanic nominative in *-ō*.

§ 115. The Suffix *-ien-*¹⁾. This Suffix, which appears in the forms *-ien-* *-ion-* *-iēn-* *-iōn-*, *-ijen-* *-iion-* *-iĕn-* *-iōn-* and *-in-* *-in-* (*-iŋ-* *-iŋ-*) arose in derivatives from the stems in *-io-* *-i-* and *-ī-*. We must distinguish two strata in this class of nasal stems.

1. Forms corresponding to denominatives like Lat. *hom-ō* Lith. *rud-ũ* Av. *mar^t-an-* (§ 114), as Skr. *abhimātīn-* 'plotting' (*abhī-māti-ṣ* 'plot'), *ὁὐρανίωv* 'the heavenly one' (cp. *ὁὐράνιο-ς*), Lat. *vulpīō* (*vulpēs*), Goth. *arbja* 'heir' (*arbi* n. 'heritage').

2. Abstract Substantives like those mentioned on p. 341 f. e. g. *cap-iō*, which, if we may judge from *δωτίv-η* and other examples, once existed in Greek as well as elsewhere.

The custom of extending all kinds of stems by an *-n*-suffix remained in full force through most of the stages in the history of the separate languages, and hence the class of stems which we are now considering was continually enlarged. But we are justified in referring all such nouns as Goth. *arbja* to the suffix *-ien-* rather than to *-en-* (§ 114) — although *a priori* the word might be analysed either *arb-an-* or *arbja-n* quite as naturally as *arb-jan-* (cp. e. g. *vaúrstv-an-* or *vaúrst va-n-*) — simply because they created no new variety of suffix, that is, none which was not in existence in the proethnic period, but merely reproduced the original *-ien-* type in one or other of its forms.

On the other hand it must be admitted that this suffix had only just begun to be used independently before the separation of the languages. Indeed there appear to be no examples of particular words that contain it which are certainly proethnic; notice however such parallels as Skr. *praśn-in-* 'questioner' A.S. *friczea* 'herald' and abstract nouns like Lat. *ratiōn-* = Goth. *raþjōn-*, Lat. *mentiō* = O.Ir. *er-mitiu*, which are mostly derived from Indo-Germanic stems in *-ti-*, see § 100 p. 294.

Aryan. Here we find only denominatives with the suffix

1) Cp. Leo Meyer's treatise quoted p. 294 footnote.

in the form *-in-*¹⁾, which spread through all the cases in the proethnic period of Aryan; e. g. nom. pl. *-in-as* instead of **-iñ-as*, loc. sing. *-in-i* instead of **-iñ-i*. During the same period *-i-* replaced *-ia-* (= *-iñ-*) in the 'middle' cases (e. g. Skr. *arct-bhyas* Avest. *kaini-bjō*) and *-i-* replaced *-iā* in the nom. sing. (Skr. *arcti* Avest. *kaini*) on the analogy of the *-en-*stems (Skr. dat. abl. pl. *-a-bhyas*, nom. sing. *-ā*).

Skr. *arctn-* 'beaming from *arcti-* 'beam', *cittin-* 'intelligent' from *citti-* 'understanding', *ūrmīn-* 'billowy' from *ūrmī-* 'billow', *atithin-* 'wandering' from *atithi-* 'guest'. Avest. *kainin-* f. 'girl' from *kanyā-* Skr. *kanyā* 'girl'. Gr. *καινός* 'new' (**και-ιo-s*); for the meaning of the suffix compare Lat. *pūs-iō* 'little boy'. But we find that the use of *-in-* as a derivative suffix has spread by analogy to other than *-o-*stems, almost exclusively however to those in *-o-* (cp. Gr. *μαλακ-ίων* from *μαλακό-ς*, Lat. *libell-ōi* from *libellu-s*, Goth. *vaurstv-ja* from *vaurstv-*); it ousted *-an-*, which remained only in Avestic (see § 114 p. 348). Skr. *parñ-in-* Avest. *per'n-in-* 'winged', beside Skr. *parñā-m* 'wing'. Skr. *yav-in-* 'rich in corn'. Avest. *yev-in-* m. 'fields', beside Skr. *yáva-s* 'corn'. Skr. *śvan-in-* 'leading dogs', from *śvan-* 'dog'. O.Pers. *vīp-in-* 'belonging to a clan' (Avestic shows the older form *vīs-an-*), from *vīp-* 'clan'. Skr. *-yin-* after vowels, e. g. *svadhā-yīn-* 'he to whom the svadhā belongs' is like *-ji-* (Lith. *mō-ji-s*) p. 122 footnote 2, and *-iñ-* § 110 p. 336.

In Sanskrit forms like *mad-in-* 'intoxicating, rejoicing' (from *māda-s* 'intoxication, joyous excitement') were referred to kindred verbs (*māda-ti*), and hence *-in-* acquired the character of a primary suffix. See Whitney, Skr. Gram. § 1183.

-min-, and *-vin-* were no doubt special formations in Sanskrit; examples are *rg-min-* 'singing, jubilating' (beside *rg-miya-* 'worthy of praise'), *namas-vīn-* 'paying reverence.' Cp. below Gr. *στα-μ'ν-*.

1) Prof. W. Streitberg was the first scholar who clearly recognised that Ar. *-in-* was derived from the original *-iñ-*. I have followed him also in regarding *-i-* as the weak form of *-iñ-*, in § 116.

Greek. *-ιον- -ίων-* appear beside *-ιο-*, as in *οὐραν-ίων* (*-ίων-*) 'the heavenly one, dweller in heaven' beside *οὐράν-ιο-ς* 'heavenly', *Κρον-ίων* (*-ιον-* and *ίων-*) 'the descendant of Kronos' beside *Κρόν-ιο-ς* 'belonging to Kronos'. Generally however *-ίων-* is an independent suffix. *Ἀτρε-ίων* 'son of Atreus', from *Ἀτρεΐ-ς*. *μαλακ-ίων* 'weakling', from *μαλακό-ς* 'weak'. *δειλακρ-ίων* 'wretch, miserable creature', from *δειλακρο-ς* 'very wretched'.

-ιν- appears in *Ἀδρηστ-ίν-η* 'daughter of Adrestos' *Εὐην-ίν-η* 'daughter of Euenos' beside *Ἀκρισ-ιών-η* 'daughter of Akrisios'. Further, in *δωτίν-η* 'gift' beside *δῶ-τι-ς* 'gift', cp. Lat. *datiō* beside *dōs*. This form justifies us in classing here the words *δελφῖν* m. 'belly-fish, dolphin' (cp. Skr. *garbh-īn-* 'pregnant'), *ἄκτ-ιν-* f. 'beam, of light', *πηρ-ίν-* f. 'scrotum', *ὠδ-ίν-* f. 'travail', *γλωχ-ίν-* f. 'point, end' (cp. *γλῶσσα* for **γλωχ-ια*). The weak form of the suffix was adopted in all the cases, as *-in-* in Aryan. Closely parallel to these are words in *-μῖν-*: *στα-μῖν-* and *στα-μῖν-* m. 'wood that stands upright', *ὄηγ-μῖν-* f. 'surge, breaker' (beside *ὄηγ-μα* 'a breaking'), *ύσμῖν-* f. and *ύσμῖν-η* 'flight' (for the *-σ-* cp. § 72 p. 173.). The nom. sing. ends in *-is* for **-ιν-ς-*, for which *-ιν* was substituted in later Greek.

Italic. *-iōn-* in the masculine is seen in Lat. *vulpiō* from *vulpēs*, *pellīō* from *pellī-s*, *restīō* from *restī-s*, *cūrīō* 'head of a curia', from *cūria*, *centuriō* from *centuria*, *lanīō* from *lanīu-s*; and it is common as an independent suffix, e. g. *libell-iō* from *libellu-s*, *cūr-iō* 'one wasted by sorrow' from *cūra*, *tenebr-iō* from *tenebrae*, *mīr-iō* from *mīru-s*, and the substantives formed from the numerals, *ūn-iō* *bīn-iō* *tern-iō* and so forth. Some of these masculines had a diminutival sense, as *homunc-iō* *senec-iō* *pūs-iō* *pūmil-iō*, cp. Avest. *kainin-* p. 358. The Umbr. *Vuf-iun-e* *Vof-ion-e* should be mentioned here.

Secondly we have the feminine abstract nouns in *-iōn-*, and *-in-* (*-īn-?*) in Umbro-Samnite; this establishes a variation in the form of the suffix in different cases for the proethnic Italic period. Lat. *com-mūniō* beside *com-mūnī-s*; Goth. *ga-máinei* 'community' beside *ga-máini-* 'communis'; *al-luv-iō* beside *al-luv-iu-m*, *al-luv-iē-s*, *con-tāg-iō* beside *con-tāg-iu-m* ob-

-sid-iō beside *ob-sid-iu-m*, cp. Goth. *ga-riud-jō* beside *ga-riud-i*. The following examples show *-iōn-* in independent use, so that it appears as a primary suffix: Lat. *leg-iō re-ligio* Osc. *leg-in-ei* 'legioni, cohorti' *leg-in-um* 'legionem, cohortem', Lat. *cōn-spīc-iō*, *reg-iō*, *cap-iō ūsū-capiō*, *opīn-iō*; Umbr. *fer-in-e* perhaps 'feretro', *tribriū* 'ternio' abl. *tribris-in-e*, Osc. *tang-in-om* 'sententiam' gen. *tang-in-eis*, *tribarakk-iuf* 'aedificatio'.

The form *-tiōn-* *-tin-* (*-tīn-?*) is especially frequent and largely superseded Idg. *-ti-*: Lat. *men-tiō* (O.Ir. *er-mītiu* 'honour'), *ra-tiō* (Goth. *ra-þjō* 'ratio'), *da-tiō* (cp. Gr. *δω-τίv-η* 'gift'), *jūnc-tiō*, *occupā-tiō*, *tribū-tiō*; Umbr. *na-tin-e* 'natione, gente', Osc. *medica-tin-om* 'indicationem', *úst-tiuf* 'usio, usus', *frukta-tiuf* 'usus, fructus', *statif* 'statio, statua'. Cp. § 100 p. 300. With Lat. *exerci-tiō* compare *exerci-tiu-m*, with *dic-tiō* the Osc. *med-dirud* 'iuris dictione', which no doubt comes from **med-dihtjō* as *Bansae* from **Bantjā-* (I § 502 p. 368 f.); see § 163 under *Italic*.

Remark. The Umbrian nominative termination *-iu* stands for pr. Ital. and pr. Idg. *-iō*. On the other hand. Osc. *-iuf* and *-if* stand for **iōns* **-ins* (**-ins?*). The latter were later dialectic formations (cp. Lat. *sanguis* Gr. *δαίς*; and other similar forms, and see § 114 p. 352, § 117 under Old Irish). The late origin of the ending *-ns* explains the special treatment of this group of sounds in these words see I § 209 p. 177, § 655 p. 506.

In the Sabine dialect we find also the form *-iēn-* *ner-iēn-om* 'fortitudinem', nom. *ner-iō*, gen. also *Νηρίv-ης* (Lydus de mens. IV 42), parallel to *ner-ō* 'brave' *Nerō* (cp. Gr. *Ἄνδρ-ων*) from Idg. **ner-* 'man'. *An-iō* gen. *-iēn-is* (amongst the Romans declined after the Latin fashion, *-iōn-is*). Should such forms be regarded as derivatives from words with the suffix *-iē-* (§ 109) (cp. *Ner-ia*), which would explain the *ē*?

Old Irish. Besides *Eriu* 'Ireland' (gen. *Erenn*; for the *nn* cp. § 117 Rem. 3) the only certain examples are the forms which correspond to the Latin feminine abstract nouns in *-tiō*: *air-itiu* f. 'accipere': Lat. *ēmtiō*, *aig-thiu* f. 'fear' and others. All the cases, except the nom. sing., have *-tin-*; there is only the dat. (loc.) sing. with its by-form in *-te* to vouch for **-tīon* in early Irish. See § 100 p. 301.

In Gallic *-iōn-* is common: we have names of towns like *Brigantio* (compared with the participial stem *brigant-* 'projecting', O.Ir. *Brigit* = Skr. *bṛhat-ī* § 110 p. 337), *Divio*, *Cabellio*; names of tribes like *Suessiōn-es*, *Κορυών-ες*.

Germanic. Masc. *-jan-* (like *-an-*). Goth. *arbja* O.H.G. *arpeo* 'heir, beside Goth. *arb-i* n. 'heritage'. Goth. *bandja* 'prisoner', beside *band-i* f. 'chain'. Goth. *vái-dēdja* 'evildoer' Mid.H.G. *übel-tæte* A.S. *yfel-dæda* 'evildoer', beside Goth. *ga-dēdi-* f. 'deed'. Goth. *ga-máinja* 'partaker', beside *ga-máini-* 'communis'. The suffix is more frequently independent. Goth. *mana-maúrþrja* O.H.G. *murdr-eo* 'murderer', from Germ. **murþra-* 'murder'; Goth. *timr-ja* 'carpenter', beside O.H.G. *zimbar* 'timber'; *fisk-ja* 'fisher', beside *fiska-* 'fish'; *vaiurstv-ja* 'worker', beside *vaiurstv* 'work'; O.H.G. *scirn-o* 'buffoon', beside *scern* 'jest'; *scar-io scaro* 'head of a troop' beside *scara* 'troop'. It has the character of a primary suffix in e. g. Goth. *arbi-num-ja* 'inheritor, heir', O.H.G. *nōt-num-eo* 'raptor', O.H.G. *sceph-eo scaffo* 'conditor', *fer-io fero* 'sailor'. Feminines (cp. O.H.G. *maga-zoha* etc. § 114 p. 355): Goth. *arbjō* 'heiress', O.H.G. *ge-betta* O.Icel. *beðja* 'bedfellow (f.), wife'.

The form *-iōn-* became incapable of denoting male persons (notice that masculines like Gr. *γεωvίā-ς* Lat. *agricola* O.C.Sl. *sluga* are foreign to Germanic). It was preserved on the other hand in names of things which in form are parallel to Goth. *arbja* etc. (also in a few names of animals), which then became feminine. Goth. *snōrjō* 'basket woven out of string', beside O.H.G. *snuori-* f. 'string'. O.H.G. *bulga* 'leathern sack', beside *balgi-* m. 'bag'. O.H.G. *hārja* 'hair garment', beside *hār* 'hair'. Goth. *ga-timrjō* O.H.G. *zimbirra* 'building', beside O.H.G. *zimbar* 'timber'. O.Icel. *birkja* 'birch-sap', beside *björk* 'birch'. O.Icel. *gedda* 'pike', beside *gadd-r* 'thorn, spine' (cp. Lat. *stellio* m. 'star-lizard, newt' from *stella*).

Feminine abstract nouns in *-iōn-*, whose gender dates from the pre-Germanic period. Goth. *gariudjō* 'modesty', side by side with *ga-riud-i* n. (same meaning) (cp. Lat. *alluviō* and *alluviu-m*), beside *ga-riup-s* 'modest, decent'. O.Icel. *vitra* 'sagacity' beside

vit-r 'sagacious'; *sælu* 'luck', beside *sæll* 'lucky'. The suffix has the character of a primary suffix in Goth. *ga-runjō* 'inundation', *sakjō* 'strife', A.S. *æsce* 'question', O.Icel. *þykkja* 'love'. We also find *-tjōn-*, but this was not fertile in Germanic, which contrasts with its history in Italic and Irish: Goth. *ra-þjō* 'reckoning' (Lat. *ra-tiō*), O.Icel. *þrætta* 'strife'. Parallel to *raþjō* is O.H.G. *redia*, a strong feminine, cp. Lat. *exercitiu-m* beside *exercitiō*. Side by side with *-jōn-* is the form *-īn-*, found in abstract denominatives, especially in those derived from adjectival stems: Goth. *agláitei* 'rudeness' side by side with *agláiti* n. (the same), *magapēi* 'maidenhood' beside *magapī-* 'maiden', Goth. *gamáinei* O.H.G. *gimeinī* 'community' beside Goth. *ga-máini-* 'communis' (Lat. *commūniō* f. beside *com-mūni-s*), Goth. *gōdei* O.H.G. *guoti* 'goodness, excellence' beside Goth. *gōþ-s* 'good', Goth. *managei* O.H.G. *menigī* 'crowd' beside Goth. *manag-s* 'many, much'. We have seen reason for believing that the same *-īn-* is contained in the suffix *-iñ-ga-*, as in O.H.G. *Berhting*, § 88 Rem. 3 p. 267.

Slavonic. We find *-jōn-* in the plural of denominative names of inhabitants and classes, as *zemljan-e* 'countrymen' from *zemlja* 'land', *graždan-e* 'citizens' for **gord-ian-e* from *gradŭ* 'city', *seljan-e* 'country folk' from *selo* 'cultivated land', *mir-jan-e* 'laici' from *mirŭ* 'world'. See I § 585, 3 p. 440.

§ 116. The Suffix *-uēn-*. This appears in the forms *-uēn-* *-uon-* (*-uēn-*) *-uōn-* and *-un-* *-uŋ-*, and appears to be derived from the *u-* and *uo-* stems, just as *-ien-* from those in *-i-* and *-iō-*.

The meaning of the suffix cannot be reduced to any general definition. Amongst the substantives it forms are *nomina actionis*, which were used as infinitives in Aryan and Greek.

Indo-Germanic. Skr. *dy-un-* (e. g. instr. *dyun-a*) n. 'life', Gr. *ai-(f)ών* (*-ων-*) m. 'space of time, eternity' *ai-(f)έν* (loc. sing.) 'always', common ground-form **ai-uēn-* (cp. I § 611 p. 461): compare Lat. *ae-vo-m*, Goth. *ái-v-s* m. 'time, eternity' ground-form **ai-uo-* (cp. I § 612 p. 462, § 614 p. 464). Skr. *pī-van-* Gr. *πī-(f)ων* (*-ων-*) 'fat': compare **pī-ue-ro-* Skr. *pīva-rá-s* Gr. *πιε-ρό-ς* 'fat' Skr. *pī-vas-* n. Gr. *πιό-ρης* etc., see § 74 p. 182.

Skr. *pār-van-* n. 'knob, joint, pause, break', Gr. *ἀ-πείρων* (*-ον*) 'boundless' for **περ-φων*, *πείραινω* 'I bring to an end' for **περ-φαν-ιω*, Skr. *pārvata-s* Gr. *πέριστα πείρατα* (see § 82 p. 249): beside these we have Gr. *ἄ-πειρος*. Skr. *agrādvan-* 'eating first', Gr. Hom. *ἔδ-φατ-* or *ἔδδατ-* n. 'food' (*ἔδδατ-* is a wrong spelling, cp. I § 166 p. 147 on *δείδιμεν*). Skr. *grā-van-* m. 'soma-stone' O.Ir. *broo brō*, gen. *broon brōn*, 'millstone'.

Datives in *-men-ai* are used as infinitives (this appears to have been a modification of the original *-yn-ai* *-un-ai* introduced in the proethnic period on the analogy of the loc. in *-men(-i)*; cp. *-men-ai* § 117). Skr. *dā-vān-e* 'to give', Gr. Cypr. *δο-φεν-αι* Att. *δοῦναι*. Avest. *vīd-van-ōi* 'to know', Gr. *εἰδέναι* for **φειδ-φεν-αι* (cp. § 136 Remark 1).

Aryan. The original relations of ablaut are preserved most nearly in Skr. sing. nom. *maghā-vā* ('generous') acc. *-vān-am* loc. *-vān-i* instr. *maghōn-ā*, Avest. sing. nom. *aša-va* ('pure') acc. *-van-em* gen. *ašaon-ō*. In Sanskrit, levelling took place in two different directions. On the one hand the form with *-van-* spread into the weakest cases: e. g. *āthar-vā -vān-am -vān-i* produced *-vān-ā -vān-as* instead of **un-ā* etc. (cp. the form *apaurun-ē* dat. preserved in Avestic), a change which was supported by the parallelism of the *man-*stems (*āś-man-ā* etc.). And the *v* of forms like *ṛtā-vn-ā* (we should expect **ṛtāun-ā*) came from the other forms with *-van-* *-vān-* (cp. I § 160 p. 144), while such a form as *pī-vn-*, and (here also) the type of the *-man-*stems (*arya-mn-ā*) may have influenced the re-formation. On the other hand, in some neuter words (e. g. *dy-un-*) a new paradigm was formed by a confusion with *u-*stems which were parallel to them, (from which came e. g. the nom. acc. *dyu*, cp. Goth. *aju-ka-* in *ajuk-dūp-s* 'eternity'). An interesting survival of *-un-* on Indian ground appears also in *mīth-un-ā* 'paired' beside Avest. *miθ-wan-* n. 'pair'. Cp. the Author, Morph. Unt. II 187 ff.

Skr. *tāk-van-* beside *tak-vā- tāk-u-* 'shooting on, quick'. *ṛbh-van-* beside *ṛbh-va- ṛbh-ū-* 'capable, aristic'. *ṛk-van-* beside *ṛk-vā-* 'singing, praising'. *pād-van-* m. beside *pād-va-* m. 'way'. *ār-van-* 'runner' beside Avest. *aurva* 'quick' A.S. *ar-u* 'prompt',

ready'. *dhán-van* n. beside *dhán-u-* f. 'dune, sandy land'. Avest. *er'd-wan-* 'raiser, helper' beside *er'd-wa-* 'uplifted, raised up'.

Skr. *ádḥ-van-* m. Avest. *aḍ-wan-* m. 'way'. Skr. *yá-van-* 'going, traveller' Avest. *yaon-a-* m. 'path, way'. Skr. *pát-van-* 'flying', *śák-van-* 'able', *rá-van-* 'bestowing'. Avest. *is-van-* 'able', *der'z-van-* m. 'fetter'. Skr. *snā-van-* n. 'bond, sinew', *túg-van-* n. 'rapid stream', Avest. *karš-van-* n. (nom. acc. *karš-var'*) name of the seven divisions of the earth.

-t-van-: Skr. *kṛ-t-van-* 'effecting' Avest. *ker'-p-wan-* 'one who brings about', Skr. *sú-t-van-* 'pressing', *sa-jí-t-van* 'victorious'. These are based on *t*-stems like *-k-ṛ-t-* 'effecting', see § 123.

Skr. *ṛtā-van-* 'holy, pious' Avest. *aša-van-* 'pure', Skr. *áthar-van-* Avest. *āpura-van-* (*āpaur-un-*) 'fire-priest', Skr. *dhītā-van-* 'rich in gifts', *amatī-vān-* 'suffering want', *samād-van-* 'eager for the fray'.

Infinitives. Skr. *dā-vān-ē* 'to give', Avest. *vīd-van-ōi* 'to know', see above p. 363.

Armenian. *siun*, gen. *sean*, 'pillar' for early Armen. **sī-van-* or **sē-van-*: Gr. *κίλων* m. f. (*-ων*) 'pillar' for **κίλ-ῥων*. *n*-cases were no doubt originally formed from *albeur*, gen. *alber*, 'spring' (I § 263 p. 214): cp. Gr. *φρέαθ φρέατος* (p. 365).

Greek. *αἰ-(ῥ)ών αἰ-(ῥ)έν, πῑ-(ῥ)ων, ἀπειρίων* for **-περ-ῥων*, see p. 362 f.

κενε-(ῥ)ών (-ων) m. 'hollow space' from *κενε-ῥός* 'empty' (§ 64 p. 135), with which we must certainly class the masculine names of places as *οἰνεών οἰνών* 'wine-bin', *παρθενεών παρθενών* 'maidens' apartment', *ἀνδρών* 'man's apartment', *ἵππών* 'horse stall', *λασιών* 'place with thick bushes' (*τὰ λάσια* 'thicket').

The form *-un-* is no doubt to be seen in *εὐθύνα* f. 'legal procedure, punishment' for **εὐθύνη-ια*, *εὐθύνω* 'I guide straight' for **-υν-ιω*; cp. Avest. *ašaon-i* fem. of *aša-van-*. Cp. also Hom. *ἑστύν-ρατα* 'in the straightest, truest way' beside *ἑστύ-ς*. See Osthoff, Forsch. auf dem Geb. der Idg. Nominalstammbildung II 24 ff., and the Author, Morph. Unt. II 190. 201 ff. 205 f.

The neuters show the same course of developement as those belonging to the *-men-* and *-en-*stems (like *οὐθ-αρ -ατος* § 114

p. 350); but there appears to be no nom. acc. sing. in *-fa* = *-μφ*. *πίρου-τα* for **περ-φα-τα* (: Skr. *pār-va-ta-s*) and *ἔδ-φα-τα* (*ἔδ-φωρ*), see above p. 363. *φρέαρ φρέατος* 'well' with *-εα-* for *-ηα-* (I § 611 p. 462) Hom. *φρήατα* (wrongly written *φρείατα*) for **φρη-φα-τα*: cp. Armen. *albeur*, see above p. 364. *στέαρ στέατος* 'congealed fat', poet. *στέαρ* i. e. *στέαρ*: Skr. *sthā-varā-* 'standing, immovable'. Other examples of the kind are given by the Author, Morph. Unt. II 225, G. Meyer, Griech. Gramm.² p. 325.

Infinitives. *δο-φειν-αι* *δοῦναι*, *εἰδ-έν-αι*; see above, p. 363. This formation was very fertile in Ionic, Attic and Arcadian. *θεῖναι* 'to place' for **θε-φειν-αι*. *ἰ-έναι* 'to go'. *δε-δι-έναι* 'to fear'. *ἀῆναι* 'to blow' for **ἀφ-φειναι*, *γνώναι* 'to recognise' for **γνω-φειναι*. From the contracted forms was taken a termination *-ναι*, which usurped the place of *-μεν -μεναι*: thus *δῦναι*, *εἶναι* (*εἰ-μεν* for **ἔσ-μεν*), *φάναι*, *διδόναι*, *δεικνύναι*. Many scholars refer *φέρειν* to **φερφειν*, see § 114 p. 347.

Old Irish. *broo brō* 'millstone': Skr. *grā-van-*, see above p. 347.

Germanic. Goth. *spar-va* A.S. *spearwa* O.H.G. *sparo* m. 'sparrow', √ *sper-* 'flutter to and fro'.

§ 117. The suffix *-men-*. This was used from the in the proethnic and later periods to form *nomina actionis*, which often varied between the meaning of the thing and the action (as Gr. *ρέυμα* 'a streaming' and 'that which streams'); more rarely to form *nomina agentis*. The *nomina actionis* were used in Aryan and Greek as infinitives. The gender varied between neuter and masculine; sometimes even in the same word, as Gr. *χεῖμα*: *χειμῶν*.

The root-syllable had generally the strong grade (the *e*-form in the *e*-series). Originally, no doubt, both this and the weak grade stood side by side in each paradigm (cp. Gr. *λειμῶν*: *λιμήν*, *ἄετ-μα*: *ἀντ-μήν*, O.Icel. *ljō-me*: Goth. *lauh-mun-i*), but a process of levelling ensued, generally in favour of the strong form.

There is difficulty in ascertaining what was the weak form of the suffix in the ground-forms of certain cases of the noun, as Skr. *várt-man-ā várt-man-as* (beside *nā-mn-ā arya-mñ-ā*).

Remark 1. From the analogy of Skr. *arc-in-ā (-ien-)* and Avest. *apaur-un-ē (-yen-)* — see § 115, 116 — we should expect **vert-mñ-*, and therefore St. **vart-an-ā*. This is supported by Goth. *vund-ufn-i* f. 'wound' *vit-ubn-i* n. 'knowledge' (*-fn- -bn-* for *-mn-*, I § 215 p. 182) beside *laúh-mun-i* f. 'flash'. The original paradigm of the latter would have been nom. **laúh-ufn-i* gen. *laúh-mun-jōs*, as in Skr. **vart-an-ā (-mñ-) várt-ma-bhiṣ (-mñ-)*. See the Author, *Morph. Unt.* II 201. 209. 217 ff. We might therefore suppose that *várt-man-ā* was a re-formation in Aryan due to the analogy of the other cases, *várt-man-i várt-ma-bhiṣ* etc. But although it must be allowed that the weak stem had both these forms in derivatives, yet even in the proethnic period the post-consonantal form *-mñ-* may have been displaced by *-men-*. There is at least a very strong probability that some such levelling process had taken place in proethnic Indo-Germanic in such infinitives as Skr. *vid-mán-ē* Gr. *ιδ-μεν-αι* (cp. also Lat. imper. *legi-min-i* below). The form of the stem represented by Skr. *várt-man-ā* would then be **vert-men-*. I should give my judgement with greater confidence, if there were a satisfactory explanation, of the absence of *m* in Skr. *bhūná prēná* and the like (*Lanman, Noun-Inflection* p. 533).

Indo-Germanic. **kleu-men-* from $\sqrt{\text{kleu-}}$ 'hear': Avest. *srao-man-* n. Goth. *hliu-ma* m. 'hearing', cp. also Skr. *śrō-ma-ta-m* O.H.G. *hliu-mun-t* § 82 p. 249. Skr. *hō-man-* n. Gr. *χεῦ-μα χύ-μα χύ-μα* n. 'gush'. Gr. *ρεῦ-μα ρύ-μα* n. O.Ir. *sruaim* n. 'stream' common ground-form **srey-men-*. Skr. *bhū-man-* n. 'existence, earth' *bhū-mán-* m. 'crowd, fulness', Gr. *φύ-μα* n. 'growth', Lith. *bu-men-ė* (no doubt with *ū*) f. 'the present'. Skr. *hē-man* loc. 'in winter', Armen. *jün*, gen. *jean* 'snow', Gr. *χεῖ-μα* 'storm' *χετ-μῶν (-μῶν)* m. 'stormy weather, winter'. Skr. *bhár-man-* n. 'support, fostering, care', Gr. *φῆρ-μα* n. 'fruit of the womb', O.C.Sl. *brě-mę* n. 'burden'. Skr. *tár-man-* n. 'top of the sacrificial post', Gr. *τέρ-μα* n. 'goal, end' *τέρ-μῶν (-ων)* m. 'boundary', Lat. *ter-men ter-mō (-mōn-)*. Skr. *várt-man-* n. 'road', O.C.Sl. *vrě-mę* n. 'time' for **vert-mę*. **men-men-* 'mind, spirit, thought': Skr. *mán-man-* n., Gr. *θρασυ-μέμνων Ἀγα-μέμνων* for **-μεν-μῶν* (De Saussure, *Mém. de la Soc. de lingu.* IV 432). Skr. *vás-man-* n. 'covering' Gr. *εἶ-μα* n. 'garment, covering' *εὖ-εἶμῶν* 'well clothed'. Skr. *ád-man* n. 'food', Gr. *ἔδ-μεν-αι* dat. inf. 'to eat', Lith. pl. *ėd-men-ys* (stem *ėd-men-i-*) m. 'mouth, chaps'. Skr.

dhā-man- n. 'statute, action, seat, dwelling', Gr. ἀνάθημα n. 'erection, something set up, offering' ἐν-θήμων 'keeping something in good order' θημών (-μων-) m. 'heap' θέμα 'something set up, deposit, pledge', √ *dhē-*. Skr. *dā-man-* n. 'gift' *dā-mān-* m. 'gift, giver', Gr. δόμα n. 'gift' inf. δόμεναι, √ *dō-*. Skr. *sthā-man-* n. 'standing-place, strength', Gr. ἐπίστημα n. 'what is set up upon something else' στήμων (-μων-) 'warp in the upright loom', Lat. *stā-men* n., Goth. *stō-ma* m. 'constituent part, element', Lith. *stō-mū* m. 'stature, height of body', √ *stā-*. Skr. *āś-man-* m. 'stone, heaven' Gr. ἄκμων 'anvil, thunderbolt'. Skr. *āj-man-* n. 'road, train', Lat. *agmen* n. for **ag-men* (the vowel owes its length to the following *-gm-*) and *ex-āmen* n. for **-āg-men* (I § 506 p. 371¹). Skr. *ōj-man-* m. 'strength', Lat. *aug-men* n., Lith. *aug-mū* m. 'excrescence upon bodies or trees'. Skr. *sī-mān-* m. 'parting of the hair, crown of the head' f. 'boundary, mark' (as to the fem. gender see Rem. 2 below), O.Sax *sī-mo* m. 'bond, cord, rope', cp. also Gr. ἱμαν-τ- (ῥ) 'strap' ἱμαν-ῖα 'well-rope' (§ 82 Rem. p. 249 f.); Gr. αἵμασιᾶ 'enclosing wall, hedge' seems to be derived from a stem **sai-men-*. Skr. *syū-man-* n. 'bond, stripe, row' Gr. ὑμήν (-εν-) m. 'hide, sinew', κασσωματα n. pl. 'patchwork, soles; plots' (prep. κάτω), Lat. *as-sūmen-tu-m* 'patch sewn on'. Skr. *nā-ma* n. Armen. *anun* Gr. ὄνομα n. Lat. *nō-men* n. O.Ir. *ain-m* n. Goth. *na-mō* n. Pruss. *e-mn-a-* O.C.Sl. *i-me* n. (I § 219 Rem. 2 p. 187 f.) 'name'. Gr. γνώμα n. 'token' γνώμων (-μων-) 'one who knows or shows, sundial, measuring-rod', Lat. *agnōmen* n. for **ad-gnō-men* (connected by popular etymology with *nōmen*), O.C.Sl. *zna-me* n. 'token'.

Skr. *jāni-man-* n. 'birth' Lat. *geni-men* (late) beside Skr. *jān-mān-*. Of the same sort are Gr. τελαμών 'shoulder-belt', O.Ir. *men-me* 'mind' and other examples. See I § 110 p. 104.

Datives in *-men-ai* used as infinitives (cp. *-uen-ai* § 116 p. 363). Skr. *vid-mānē* 'to learn, experience' (side by side with

1) In the English translation, l. 6. of this paragraph, instead of 'before originally long vowels', read 'after etc.'.

which we also find other cases of *vid-mán-*), Gr. ἰδ-μεναι 'to know'. Skr. *dā-manē* 'to give' (cp. p. 367), Gr. δό-μεναι 'to give'. Lat. imper. *legimin-ī*, in form identical with Gr. λεγόμεναι (see below).

-men- seems further to have been used even in the parent language as a secondary suffix: Skr. *arya-mán-* m. 'comrade, friend', Mid.Ir. *Airem*, gen. *Areman Eremon*, beside Skr. *aryá-* 'devoted, attached' O.Ir. *aire* (gen. *airech*) 'princeps, primus'.

-men- and *-mo-*, are often interchanged from the proethnic period onwards (see § 112 p. 340 f.); and this led to a certain confusion, which can be sometimes traced in the separate languages, between the *-men-* forms and the substantives in *-mo-* which have the *o*-grade in the root-syllable (see § 72 p. 170). Gr. *ol-μα* n. 'assault' instead of **il-μα* (Skr. *é-man-* n. 'course') through the influence of *ol-mo-s* *oi-μη*. O.H.G. *lei-mo* m. 'loam' instead of **li-mo* (Gr. *λει-μών*) through the influence of the form *lei-m* m.

In all the Indo-Germanic languages *-men-* was a fertile suffix, most of all in Aryan, Greek, and Latin.

Aryan. Skr. *tōk-man-* 'young blade of corn' Avest. *taox-man-* n. 'bud, family, offspring'. Skr. *hē-mán-* m. 'impulse' Avest. *zaē-man-* n. 'zeal'. Skr. *dhā-man-* n. 'statute, action, seat, dwelling' Avest. *dā-man-* i. e. *dā-man-* n. 'creation, creature' (I § 200 p. 168): Gr. ἀνά-θημα etc., see above p. 367. Skr. *āś-man-* Avest. O.Pers. *as-man-* m. 'stone, heaven': Gr. ἄξ-μωρ 'anvil, thunderbolt'. Skr. *nā-man-* n. Avest. *na-man-* (*ā*) n. O.Pers. *nā-man-* n. 'name': Armen. *anun* etc., see above p. 367.

In secondary use: Skr. *arya-mán-* m. 'comrade, friend' Avest. *airya-man-* 'obedient' beside Skr. *aryá-*, see above.

Sanskrit. *dhār-man-* n. 'support' *dhar-mán* m. 'bearer', *brāh-man-* n. 'devotion' *brah-mán-* m. 'one who prays', *svād-man-* n. *svād-mán-* m. 'sweetness, loveliness'; *vāri-man* n. *vari-mán-* m. 'extent'. *ód-man-* n. 'undulation', *é-man-* n. 'course', *várṣ-man-* n. 'height, surface', *sād-man-* n. 'seat, abode', *sā-man-* n. 'hymn', *trā-man-* n. 'protection', *yā-man-* n. 'course'; *jāni-man-* n. 'birth', *bhāri-man-* n. 'a carrying'. *hāvī-man-* n. 'a calling upon'. *ūṣ-*

-mán- *uś-man-* m. 'heat', *ō-mán-* m. 'favour, help', *jē-mán-* m. 'superiority'; *prathi-mán-* m. 'breadth'. *dā-mán-* m. 'giver', *sō-mán-* m. 'presser, preparer of the soma'. Forms like *prathi-mán-* were popularly connected with the parallel adjectives such as *prthú- práthīyas-*, and hence *-i-man-* became a secondary suffix, as in *dradh-imán-* m. 'firmness' from *dṛdhá-* 'firm' compar. *drádh-īyas-*, *dhūmr-imán-* m. 'dark colour, gloom' from *dhūmrá-* 'dark'.

Avestic. *a-pišman-* 'without art, without skill'. *maēs-man-* n. 'urine', *daē-man-* n. 'eye', *paē-man-* n. 'milk, mother's milk', *dūn-man-* n. 'cloud, vapour' no doubt = *dū-man-* (cp. *dā-man* above), beside Skr. *dhū-má-s* 'smoke', *stao-man-* n. 'song of praise, laudation', *bar's-man-* n. 'bundle of consecrated twigs for offering', *caš-man-* n. 'eye'. *ras-man-* m. 'army in line, line of battle': Gr. ὄρεγ-μα n. 'a stretching out, stretch'. *urvās-man-* 'one who makes others glad, joy-giver'.

Infinitival datives. Skr. *vid-mánē*, *dā-manē*, see p. 367 f. above. Skr. *dhár-manē* 'to support', *trá-manē* 'to protect'. Avest. *stao-mainē* 'to praise', *xšnū-mainē* 'to content'. In Avestic the locative also appears as an infinitive, e. g. *caš-man caš-mērag* 'to behold' beside dat. *caš-mainē*.

Remark 2. The nominative termination *-mā* (m. and n.) appears sometimes to have led to a transference to the feminine *ā*-declension; this process may have been aided by the close connexion between the *-men-* and *-mo-* stems, which dates from before the Aryan period. Thus e. g. Skr. *sī-mā* = *sī-mán-* 'boundary' (*sī-mā-* in its turn influenced *sī-mán-* so far as to give it the fem. gender), *dā-mā-* beside *dā-man-* n. 'bond' (also f., according to the grammarians; the change of gender came about in the same way as in *sī-mán-* f.), O.Pers. *tau-mā-* 'family' = Avest. *taox-man-*. Cp. § 114 Rem. 1 p. 348, § 122 Rem. p. 383.

Armenian. *jiun* 'snow', *anun* 'name', see above, p. 366 f.; for the phonetic changes see I § 202 p. 169. *gel-mn*, gen. *gel-man*, 'wool, fleece': to be compared either with Skr. *vár-man-* 'defensive armour' Gr. ἔρ-ιο-ν 'wool' (✓ *uer-*) or with Lat. *vellus*, Goth. *vulla* 'wool' (✓ *uel-*). *marmin* (*-min-* for *-men-*, I § 63 p. 50), gen. *mar-mn-o-y*, 'body, flesh' (which is extended by the suffix *-o-*): Skr. *már-man-* n. 'membrum, joint, open part of the body which is especially exposed to mortal wounds'.

Brugmann, Elements. II.

Greek. The history of the neuter forms is the same as in the case of the *-en-* and *-men-* stems; see § 114 p. 350.

χῦ-μα χῦ-μα χύ-μα, χεῖ-μα χει-μῶν, φέρ-μα, τέρ-μα τέρ-μων and others; see above, p. 366 f.

πνεῦ-μα n. 'breath', πνεύ-μων (-μον-) m. 'lung'. ἄετ-μα n. (φλόξ', beside ἀετμό-ν 'πνεῦμα' Hesych.), ἀντ-μήν (-μεν-) m. 'breath, exhalation, vapour' (ἄετ-μα? cp. p. 372). ἦ-μα n. 'missile', ῥή-μων (-μον-) m. 'thrower, slinger': Lat. *sē-men* n. O.H.G. *sā-mo* m. O.C.Sl. *sē-mę* n. 'seed', √ *sē-*. μνή-μα n. 'memorial', μνή-μων (-μον-) 'mindful'. νόη-μα n. 'thought', νοή-μων (-μον-) 'thoughtful'.

ζεῦγ-μα n. 'bond, bridge of boats': Lat. *jūmentu-m* for **jūg-men-to-*, common ground-form **jeug-men-*. δεῖ-μα 'fear'. λεῖμμα for *λειπ-μα 'remnant'. κλί-μα κλί-μα 'inclination'. μῖγ-μα 'mixture'. δέρ-μα 'skin torn off, hide': Skr. *dar-mān-* m. 'shatterer'. ἔρ-μα 'ear-ring'. στρίψ-μα 'something strown, bed, covering': Lat. *strā-men* n., common ground-form **stř-men*; cp. Skr. *stāri-man-* n. 'a spreading out, strewing abroad' *stari-mān-* m. 'bed'. πέλ-μα 'sole of the foot': cp. A.S. *fil-men* 'membrana' O.Fris. *fil-men-e* f. 'skin'. φλέγ-μα 'brand'. γέννα f. 'race, family' probably was neuter originally, and stands for *γεν-μα: Skr. *jān-man-* n. πείσμα 'cable, rope' for *πενσμου from √ *bhendh-* 'bind'; as to σ for θ see p. 372: cp. Lat. *of-fendi-mentu-m*. βῆ-μα 'step, grade, platform': Skr. *vā-gāman-* n. 'step', common ground-form **gñ-men-*, √ *gem-*. πέμμα 'pastry' for *πεπ-μα. ὑπό-δημα 'something fastened beneath sole' δέ-μα δέ-σμα 'bond': Skr. *dā-man-* n. 'bond'. αἷ-μα 'blood', beside O.H.G. *sei-m* m. 'virgin honey'. ὀδ-μα 'swell of the sea'. ὄμμα 'eye, visage' for *ὀπ-μα. νᾶ-μα (Dor. form) 'stream', √ *snā-*. βλή-μα 'missile, shot'. ῥῆ-μα 'utterance' for **ῥῥῆ-μα*. σᾶ-μα σῆ-μα 'token', to be compared no doubt with Skr. *dhyā-man-* m. 'measure' n. 'thought', beside *dhyā-* 'think of' *dhī-* 'appear, resemble, observe, think'. Dor. πᾶ-μα 'that of which one has the disposal, over which one has power, possession', for **ḡmā-men-*, compared with El. ἐμ-πίω 'bring to effect, accom-

plish' and with *κῦ-ρος* (cp. *πάμωχος* 'ὁ κύριος Hesych.)¹). *σχῆ-μα* 'demeanour, form'. *ὄρα-μα* 'sight'. *ὄρμη-μα* 'solicitude'. *μίσθω-μα* 'stipulated payment'.

The nom. acc. sing. neut. of one or two *-men-* stems ends in *ρ*, as in some of the neuter stems in *-en-* and *-men-*: *ἡμαρ*, gen. *ἡματος*, 'day', *μῦμαρ* *μῶμαρ* 'blame', *λῦμαρ* beside *λῦμα* 'pollution', *τέκμαρ* and *τέκμαρ* 'proof' (*-μωρ* for *-mṛ*, cp. *ὑδωρ* I § 306 p. 243). Cp. § 118.

κενθ-μῶν (*-μων-*) m. 'hiding-place'. *πνθ-μῆν* (*-μεν-*) m. 'depth, ground'. *λει-μῶν* (*-μων-*) m. 'damp place' and *λι-μῆν* (*-μεν-*) m. 'harbour'. *ἰδ-μῶν* (*-μουν-*) 'having knowledge of' (*ἰδμο-σύνη*). *ἐπι-λήθμων* (*-μον-*) 'forgetful' (*σ* instead of *θ*, p. 372). *ποι-μῆν* (*-μνε-*) m. 'herdsman': Lith. *pė-mū* m. 'herd-boy'. *τλή-μῶν* (*-μον-*) 'stead fast, enduring'. *ἀλή-μῶν* (*-μον-*) 'wandering about' (*ἀλᾶσθαι*). *ἐλεή-μῶν* (*-μον-*) 'pitiful'. *τελα-μῶν* (*-μων-*) m. 'shoulder-belt, baldrick' properly 'bearer', *√ tel-*. *τερά-μῶν* (*-μον-*) 'that becomes soft by boiling'. *ἡγε-μῶν* (*-μον-*) m. 'guide'. *κηδε-μῶν* (*-μον-*) m. 'one who cares for' a person. *-μῶν* acquired the character of a secondary suffix, just as Skr. *-i-mān-*: *ἀκρεμῶν* (*-μον-*) m. 'end of a branch, top' from *ἄκρο-ς*, *δαιτυ-μῶν* (*-μον-*) m. 'he who sits at meat, guest' from *δαιτύ-ς*.

The dative, in *-μεν-αι*, and the locative, in *-μεν*, served as infinitives. *-μεναι* occurs in Ionic (epic) and Lesbian. *ἔδ-μεναι*, *δό-μεναι*; see above, p. 367 f. *ἔδ-μεν-αι* 'to eat' (Skr. *ád-man-*, p. 366), *θέ-μεναι* 'to place' (*-θημα θέ-μα*, p. 367), *αἰή-μεναι* 'to blow', *βῆ-μεναι* 'to go' (*βῆ-μα*, p. 370), *δύ-μεναι* 'to press in, enter' (*ἐκ-δύμα* 'garment taken off'), *βλή-μεναι* 'to strike' (*βλή-μα*, p. 370), *δαή-μεναι* 'to be versed' (*δαή-μων* 'versed'). On the model of these were formed: *φανή-μεναι* *τετλά-μεναι*, *ζευγνύ-μεναι*, *αἰιδέ-μεναι*, *εἰπέ-μεναι* *ἄξε-μεναι*. *-μεν* is found in Ionic (epic), Doric, N.W.Greek, Elean, Thessalian, and Boeotian. *ἰδ-μεν*, *δό-μεν*, *θέ-μεν*, *ἔ-μεν*, *ἔμ-μεν* (*εἴμεν ἡμεν*), *τετλά-μεν*, *ὀρνύ-μεν*, *φερέ-μεν*, *εἰπέ-μεν*, *ἄξε-μεν*.

1) The nearest cognates of *πᾶμα* are collected by J. Baunack in his Stud. I 73 f.

Corresponding to *-τ-μο -θ-μο- -σ-μο-* (§ 72, 3 p. 173) we find *-τ-μεν- -θ-μεν- -σμεν-*. *-τ-μεν-* occurs in *λαῖ-τμα* 'gulf of the sea', no doubt to be compared with *λαι-μός* 'throat, gullet', and perhaps in *ἄετμα ἀντηγήν*. *-θ-μεν-*: *ἵ-θμα* 'course'. *-σμεν-*: *πλάσμα* 'image, figure' from *πλάσσω*, *κλώσμα* 'something spun' from *κλώθω*, *πείσμα* 'cable' for **πενθ-μα* (*σ* had not displaced *θ* in the earliest period of Greek, see I § 204 Rem. 2 p. 171), *ἐπι-λῆσμων* 'forgetful' from *λήθω*, *ἔρεισμα* 'support' from *ἐρείδω*, *σχίσμα* 'split' from *σχίζω*, and the neuter forms in *-ισμα* and *-ασμα* compared with derivative verbs in *-ίζω -άζω*, as *νόμισμα* 'usage, institution, from *νομίζω*, *ἀσπασμα* 'caress' from *ἀσπάζομαι*; also *ἄρμωσμα* 'joined work' from *ἀρμόζω*.

Italic. The neuter forms were often extended by *-to-*; see § 82 p. 249 ff.

Lat. *nō-men* n., Umbr. *nome* n. 'nomen' *nomner* 'nominis': Skr. *nā-man-* n. etc.; see p. 367 above. Lat. *prae-dicāmentu-m*, Umbr. *tikamne* 'dicatione, invocatione'. Lat. *testā-mentu-m*, Osc. *trīstaamentud* abl. 'testamento'. Lat. *Sē-mō (-mōn-)* 'seed-god', fem. *Sē-mōn-ia*, Pelign. *Semunu* 'Semonum', beside Lat. *sē-men* n. Umbr. *aīmune* dat. 'alimoni'.

Lat. *nū-men*, n.: Gr. *νεῦ-μα* 'nod'; *lū-men* for **lūc-men*, later **lūgmen* (I § 500 p. 367, § 506 p. 371¹⁾, or for **lūc-s-men* (cp. *illāstri-s* and *lūna* I § 503 p. 369): Goth. *laúh-mun-i* f. 'flash' O.Sax. *lio-mo* O.Icel. *ljō-me* m. 'brightness, light, gleam': the *ū* in *nū-men lū-men* may be either Idg. *ū* or Idg. *ey*. *crī-men*: Gr. *χοῖ-μα χοί-μα* 'decision, sentence'. *ger-men*. *sarmen* for **sarp-men*, *sar-mentu-m*. *cul-men*. *sēg-men* for **sec-men*, *sēg-mentu-m*. *tēgmen tēgmentu-m*. *āgmen*: Skr. *āj-man-* etc., see above, p. 367. *caementu-m* for **caed-mentu-m*. *nē-men*: Gr. *νή-μα* 'something spun, yarn', *✓ snē-*. *com-plēmentu-m*: cp. Gr. *πλήσμα* 'filling, what fills'. *flā-men flā-mentu-m*. *certā-men*. *mōlī-men mōlī-mentu-m*. *volū-men, statū-men*, hence were formed *leg-ūmen leg-ūmentu-m*, *alb-ūmen* and other similar derivatives.

1) See footnote to p. 367 above.

regi-men regimentu-m. tegi-men beside *tēgmen. of-fendi-mentu-m. monu-mentu-m. colu-men (columna)* beside *cul-men*.

Masculine forms are rarer. *ter-mō (-mōn-)* beside *ter-men n.*: Gr. *τέρ-μιων* etc., see above p. 366. *ser-mō (-mōn-)*. *pul-mō (-mōn-)*.

The dat. sing. in *-min-ī* was used in Latin as the 2. pl. imp. med.-pass., e. g. *legiminī* (= Gr. *λεγόμεναι*), *sequiminī*. The restriction to the plural, and to the medio-passive meaning was caused by the indicative *legiminī* = Gr. *λεγόμενοι* and = *λεγόμεναι*. See § 71 p. 165.

Old Irish. Neuters. *sruaim, ainm*; see above, p. 366 f. *deiln* 'noise'. *cuirm* 'beer'. *gairm* 'call, cry'. *druim* 'back' for **dros-men*, compared with Lat. *dorsu-m. cēimm cēim* 'stepping, step', beside *cingim* 'I step', *lēimm lēim-* 'spring' beside *lingim* 'I spring', *grēimm grēim* 'progressus' beside *in-grennim* 'I pursue' (*grend-*), see I § 523 p. 380. *bēim* 'striking, blow' beside *benim* 'I strike': did this come regularly from **ben-men-* or was it influenced by the form of these other nouns? With *-a-men-*: *feid-m* 'strain', *fo-naidm* 'bond, compact'.

Remark 3. The origin of *nn* in forms like nom. pl. *an-mann*, dat. pl. *an-mannaib*, is still quite obscure. The latest discussion of this difficult question is by Stokes (Bezenberger's Beitr. XI 93) and Windisch (Über die Verbalformen mit dem Character R p. 40 f.).

men-me m. (gen. men-man) 'mens' for **men-a-men-* (cp. Skr. *mán-man-* n. 'mind, thought'). The nom. in **men-s* was a re-formation like Lat. *sanguis* Gr. *δελφίς*, for **δελφίς*, cp. also O.Ir. *aru*, § 114 p. 352, § 115 p. 360.

Masculine and Feminine forms with pr. Celt. **-mō* in the nom. sing. (cp. Gall. *casa-mo, Sego-mo*), gen. Ir. *-mon -man* dat. *-main*. The masculine forms appear to be all denominatives: *Aire-m:** Skr. *arya-mán-* m., see above p. 368, *orbe-m* 'heir' from *orbe n.* (which represents a ground-form **orbh-ū-o-m*) 'inheritance', *flai-the-m* 'ruler' from *flaith* 'rule', *dūle-m* 'creator' from *dūil* 'element', *brithe-m* 'judge' from *breth* 'sentence', *olla-m*, gen. *olla-man*, 'princeps poetarum' no doubt connected with *oll* 'great, mighty'. *tala-m* (gen. *talman*), f. 'earth' no doubt for **tīl-mō*, √ *tel-*.

anim f. 'soul' (dat. *an-min*) may have been originally a *-mā*-stem (cp. Lat. *animā-*) and have been transferred to this declension through the influence of *menme*.

Germanic. The old variation between neuter and masculine was almost entirely obliterated in favour of the masculine. The neuter survives only in Gothic and Norse in a few examples: Goth. *na-mō* n. 'name' (O.Icel. *na-fn* n. by a transference to the *o*-declension, O.H.G. *na-mo* m.): Skr. *nā-man-* n. etc., see p. 367 above; O.Icel. *sī-ma* beside *sī-me* m. 'rope' (O.Sax. *sī-mo* m.): Skr. *sī-mān-* etc., see p. 367 above.

Masculine. Goth. *hliu-ma* 'hearing' O.H.G. *hliu-mun-t* 'call', Goth. *stō-ma* 'constituent part', see p. 366 above. O.H.G. *sā-mo* 'seed', see p. 370 above. O.Sax. *lio-mo* 'brightness', see p. 372 above. Goth. *hiuh-ma* 'heap'. Goth. *skei-ma* 'light', O.H.G. *sci-mo* 'brightness, sheen'. O.H.G. *kī-mo* 'the bursting bud'. O.H.G. *glizemo* 'brightness', Goth. *glit-mun-jan* 'to gleam'. Goth. *milh-ma* 'cloud'. Goth. *ah-ma* 'spirit'. Goth. *blō-ma* O.H.G. *bluo-mo* 'bloom'. This masculine suffix was fertile only in Old Frisian and there only to a limited extent; it became denominative as in Sanskrit etc., e. g. *werth-ma* 'taxation' from *werth* 'value'.

-s-men-, like *-s-tro-* *-s-lo-* etc. (see § 61 p. 117). O.H.G. *rosamo* 'aerugo' for **rots-mō* beside O.Sax. *rotōn* 'to rust', cp. O.H.G. *rotamo* 'redness'. O.H.G. *dīhsamo* 'prosperity' *fram-dehsmo* 'increasing prosperity', beside *dīhan* 'to wax great'. O.Sax. *blicsmo* 'flash' beside *blīcan* 'to gleam'. The *s* came from forms like O.H.G. *wahs-amo* *was-mo* 'growth' (*wahs-an* 'to wax') and O.Sax. *brōsmo* 'soft part of bread, crumb' (A.S. *brȳs-an* 'to break in pieces').

-t-men-, like *-t-mo-* § 72 p. 175 f. O.H.G. *wi-damo* 'price of the bride, dowry' from *ūt-* 'bind'; A.S. *blōstma* 'bloom', cp. Mid.H.G. *bluos-t* beside *bluo-t* 'bloom'.

The feminine *-mōn-* is rare and certainly a late formation: e. g. O.H.G. *bluo-ma* beside the masc. *bluo-mo*.

Balto-Slavonic. Lith. *ak-mū̃* m. O.C.Sl. *ka-my* m. 'stone'. Lith. *szel-mū̃* m. 'gable' O.C.Sl. *slě-mę* n. 'beam': cp. Lith. *szal-ma*

'long beam'. Lith. *sė-men-s* pl. m. 'seed', especially linseed, O.C.Sl. *sě-mę* n. 'seed': Gr. *ῥ-μα* etc., see p. 370 above.

In Lithuanian only masculines appear (nom. *-mũ* gen. *-meñ-s* etc.); the neuter has died out in the same way as in other classes of stems. *sto-mũ* 'stature, tallness', *aug-mũ* 'excrecence', see p. 367 above. *pž-mũ* 'herd-boy', see p. 371 above. *rau-mũ* 'flesh of the muscles', no doubt to be compared with O.H.G. *rio-mo* 'strap, band', common ground-form **rey-men-* (cp. Osthoff, Morph. Unt. IV 142). *rė-mũ* 'heart-burn'. *lė-mũ* 'trunk, stature'. *szer-men-s* pl. 'funeral meal' (no doubt from *szér-ti* 'to feed'). *žel-mũ* 'sprout, plant'. *tesz-mũ* 'udder'. *ász-men-s* pl. 'cutting edge'.

O.C.Sl. *brě-mę* n. 'burden', *vrě-mę* 'time', *i-mę* 'name', *zna-mę* 'token'; see above, p. . *pis-mę* 'letter', ✓ *peřk-*. *plemę*, 'stem, family' no doubt for **pled-mę*, compare *plodũ* 'fruit'. *ra-mę* beside *ra-mo* 'shoulder' (cp. I § 306 p. 241). *vymę* 'udder' for **vyd-mę* (I § 547 p. 400 f., § 666 p. 526). *cismę* 'number' for **čit-smę*, cp. *čislo* § 76 p. 211.

plamy m. 'flame' for **pol-my*, beside *pol-ėti* 'to burn, uri' *pla-nąti sę* 'to blaze out'. In a few other examples the only form of the nom. sing. which occurs is one which shows a transference to the *i*-declension; e. g. *pra-men-ĩ* 'thread' (gen. *pramen-e*, like *plamen-e*); in others we have both forms, *plamen-ĩ* beside *plamy*, *kamen-ĩ* beside *kamy*.

Remark 4. The original weak form of this suffix perhaps appears in such examples as *kamīnija kamni*, which Leskien has collected in his Handb.² § 43 p. 58.

VI. Suffixes in *-r*.

§ 118. Nom. acc. neut. in *-r* (*-r̥ -r̥*). We may fairly class among the elements from which noun stems were formed the *-r* of neuter words like Skr. *údhar* Gr. *οὐδαρ* Lat. *über* (O.H.G. *ūtar* m., but there can be no doubt that it was originally neuter) 'udder' — for further examples see § 114 pp. 347, 350, § 116 p. 364, § 117 p. 371; etymologically it must be connected in most cases with the suffix *-ro-*, in some words perhaps with *-er-* and the comparative suffix *-ero-*. See

§ 74 p. 180. How these forms in *-r* came to be included in the paradigm of *n*-stems (e. g. Skr. *údhār* gen. abl. *údh-n-as* loc. *údh-an-i*) is a question we cannot answer. The difference in meaning, which (to judge from the variation of the stem) must once have existed between the nom. acc. and the other cases, had probably disappeared before the dissolution of the proethnic community. With this we may naturally compare the loss of the distinction in meaning, which once existed over and above the difference in gender, between the stems of the masc. Skr. *pī-van-* Gr. *πī-(F)ov-* and the fem. Skr. *pī-va-r-i* Gr. *πī-(F)εῖρα* f. 'fat'.

In Aryan this nom. acc. form was also used for the pl., just as (e. g.) Skr. *nāma* 'ὄνομα' and *purú* 'πολύ' were plural as well as singular; it also served as loc. sing., cp. loc. *kárman*. This plurality of function may be regarded as proethnic. In Avestic however we have a still freer use; the forms in *-ar°* appear indifferently for cases of the most widely different meaning; e. g. *karšvar°* 'division of the earth' is used for the gen. sing., *dasvar°* 'strength, health' for the dat. sing., as well as for the nominative.

In several branches of language the form in *-r* was made the basis of a new paradigm, though the change never affected any very large number of words. Thus in Avestic we have dat. sing. *zafr-ē* nom. pl. *zafr-a* gen. pl. *-zafr-am* from *zafar°* 'throat, mouth' beside gen. sing. *zafan-ō*; instr. pl. *baēvar°-biš* from *baēvar°* 'myriad', Gr. *ἔαρ* 'blood' gen. *ἔαρ-ος* beside Skr. *asán-* n. 'blood'; Lat. *uber* gen. *uber-is* beside Skr. *údhan-*; *femur* gen. *femor-is* beside *femin-is*, *jecur* gen. *jecor-is* and *jecin-or-is* beside Skr. *yak-án*; O.H.G. *wazzar* gen. *wazzares* beside Goth. *vatō* gen. *vatins* 'water'.

§ 119. The Suffixes *-er-* and *-ter-*¹⁾. The two forms of the suffix are found side by side without difference of meaning,

1) The Author, *Die Nomina auf -ar- und -tar-*, Curtius' Studien IX 361 ff., D'Ooge, On the use of the suffixes *-τερ -τορ -τηρ -τα* in Homer, Leipzig 1873. E. Schäffer, *Über den Gebrauch der Derivativa auf tor und trix*, Prenzlau 1859. 1860.

like the comparative suffixes *-ero-* and *-tero-* (§ 75 p. 188 ff.). It is probable that the form *-ter-* arose through the addition of *-er* to a stem formed with a *t*-suffix.

The nouns in which these suffixes occur are, with comparatively few exceptions, *nomina agentis* or names of kindred. The former class has *-ter-* throughout, e. g. **jeuq-ter-* 'harnesser', the latter both *-er-* and *-ter-*, e. g. **daiu-er-* 'levir' and **pə-ter-* 'father'. *-er-* is also found in a few substantives which belong to neither of the two groups, as **n-er-* 'man' and **us-er-* 'dawn'.

The *nomina agentis* are masculine, and even in the proethnic period feminines were formed for them by means of *-ī-* *-īē-*, e. g. Skr. *jāni-tr-ī* Gr. *γενέ-τειρα* Lat. *gene-tr-ī-x* 'she that produces, mother', see § 110 p. 336. The names of kindred were masculine or feminine according to the sex they denoted, as **pə-te-r* 'father', **mā-ter-* 'mother'. It was not till later periods that special grammatical signs were added to mark this, and then only in a few words; e. g. Lat. *jani-tr-ī-c-ēs* beside Skr. *yā-tar-* 'husband's brother's wife' Gr. *σὺν-ἀ-τερο-εῖς* 'women married to brothers'.

§ 120. The forms assumed by the suffix *-(t)er-* in its different grades were very numerous both in the proethnic and later periods. The so-called strong cases had *-(t)er-* *-(t)or-* *-(t)ēr-* *-(t)ōr-*, the weak cases *-(t)r-* *-(t)ṛ-*.

First as regards the weak cases: *-(t)r-* appears before the case endings which begin in a sonant, e. g. Skr. dat. sing. *pi-tr-ē dā-tr-ē*, *(t)ṛ-* before those which begin in a consonant, e. g. loc. pl. *pi-tṛ-ṣu dā-tṛ-ṣu*. The same forms of the suffix were originally regular in derivatives; e. g. Skr. *datr-ī-ṣu* loc. pl. fem. beside *dā-tar-* *dā-tār-* 'dator', *bhratr-ivā-m* 'brotherhood' beside *bhrā-tar-* 'brother'. In several languages the weak forms of the suffix were soon driven out by the strong in the declension of the *-(t)er-* stems, especially in *nomina agentis*; and all that remain to show that weak forms had ever existed in the case-system are derivatives which contain the weak stem. Compare e. g. Gr. *λησ-τε-ίς* 'female robber' *λησ-τε-ικός* 'inclined to robbery' beside *ληίσ-τωρ* (*-τωρ-*) and *ληίσ-τηρ* (*-τηρ-*) 'robber', Lat. *dā-tr-ī-x*

beside *da-tor* (-*tōr-*), *mole-tr-ina* beside *moli-tor* (-*tōr-*), Umbr. *uh-tr-etie* 'auctoritate' beside *uh-tur* 'auctor', Lith. *dukr-ėlė* 'little daughter', *pó-dukr-a pó-dukr-ė* 'step-daughter' (Pruss. *po-duc-r-e*) beside *duk-tė* (-*ter-*) 'daughter', Pruss. *swestr-o* O.C.Sl. *sestr-a* beside Lith. *ses-ū* (-*er-*) 'sister'.

With regard to the original distribution of the strong forms of the suffix the following points may be considered certain.

1. The nom. sing. ended sometimes in -(*t*)*ē(r)*, sometimes in -(*t*)*ō(r)*, cp. on the one hand Gr. *πα-τήρ δο-τήρ* Lat. *pa-ter* (I § 655, 4 p. 503), O.Ir. *a-thir* (I § 657, 6 p. 509), O.Icel. *fa-ðer fa-ðir*, Lith. *duk-tė* O.C.Sl. *dŭsti* (Skr. *pi-tā dā-tā*) and on the other Gr. *φρά-τωρ μητρο-πάτωρ δώ-τωρ*, Lat. *sor-or da-tor* (I § 655, 4 p. 503), O.Ir. *siur* for *syēs-ōr* (I § 657, 6 p. 509), Lith. *ses-ū* (Skr. *bhrā-tā dā-tā*).

2. A certain number of these stems had in the acc. sing. and nom. du. pl. -(*t*)*er-*, cp. Gr. *πα-τέρ-α*, O.H.G. *fa-ter*, Lith. *dūk-ter-į* (Skr. *pi-tār-am*).

3. There was a loc. sing. in (-*er*) *-eri*, cp. Gr. *πα-τέρ-ι* (Skr. *pi-tār-i dā-tār-i*).

Further conclusions which I think probable are as follows. All the -(*t*)*er-*stems had originally the same inflexion; the difference between -*é-* : -*ē-* and -*o-* : -*ō-* was caused solely by difference of accent. Gr. *πατήρ πατέρα* : *μητρο-πάτωρ*, *πάτορα*, *άνήρ* : *άνερα* : *άγ-ήνωρ* - *ήνορα* and so forth, just as *φρήν φρένα* : *ἄ-φρων* ἄ-φρονα. Moreover the same variation appears where the words are uncompounded; Gr. *δο-τήρ δο-τήρ* beside *δώ-τωρ*, *ήρ-τήρ* beside *ήή-τωρ* and the like, and Skr. nom. *dā-tā* beside *dā-tā*, *pātā* beside *pā-tā*, Avest. acc. *bar^e-tār-em* = Skr. *bhartār-am* beside *baśār-em* = Skr. *bhārtār-am* (I § 260 p. 212 f.). In Greek there is no trace of a difference in meaning between these latter pairs of forms; in Sanskrit, on the other hand, the *nomen agentis* as a rule has the character of a participle when the root-syllable bears the accent (the governed nouns being usually in the acc., *vāsūni dātā* 'bona dans'), whereas, when the suffix is accented, it is a noun pure and simple (usually governing the gen., *vāsūnā datā* 'bonorum dator'). This distinction may be original, and

at one time have prevailed in Greek; indeed, the Lat. *da-tūr-u-s* vouches for the fact that these *nomina agentis* had a participial character in the parent language, as they actually have in Iranian. It follows that the difference of accent in this class of words may be originally based on a difference of accent in the sentence. Hence it is probable that

1. The acc. sing. nom. acc. du. had *-(t)or-* under some conditions, parallel to *-(t)er-* under others; cp. Gr. *δα-τορ-α* *φρά-τορ-α* *ἔορ-ες* (§ 122), Mid.Ir. *siair*, Goth. *brō-þar svist-ar* O.H.G. *bruo-dar*, Skr. *dā-tār-am svās-ār-am*.

2. The loc. sing. always ended in *-(t)er-i*, even where *-(t)or-* occurred in the strong cases of the same paradigm, cp. Skr. *dā-tar-i* (with *-ā-* as much as *dā-tār-i*), *svās-ar-i* beside *dā-tār-am svās-ār-am*; cp. Goth. loc. *ah-min*: acc. *ah-man*. Similarly in all the feminine derivatives in *-ī-* *-iē-* (§ 110 p. 336 f.) *-ter-ī* was no doubt the original form in the nom. sing.; cp. Gr. *ἐν-πάτερια παμ-μήτερια* (from *ἐν-πάτωρ παμ-μήτωρ*) as well as *δμή-τιρα* (beside *δμη-τήρ*).

Remark. The assumption that all *-ter-*stems had originally the same inflexion is further supported by the Gr. voc. *αῶ-τερ* from *σῶ-τήρ* (just as *πά-τερ* from *πα-τήρ*).

Considerable readjustment took place in Aryan and Greek in the inflexion of *nomina agentis* which accentuated the suffix. In Sanskrit we have *dā-ār-am* instead of **dā-tār-am* through the influence of *dā-tār-am*; similarly in the other strong cases. In Greek, the form *-τήρ* of the nom. sing. spread through all the cases: *δο-τήρ-α* instead of **δο-τίρ-α*, *δο-τήρ-ο*; instead of **δο-τε-ός* and so forth; only a few vocatives singular are excepted, as *αῶ-τερ* above. On the other hand, the *-τέρ-* of the *nomina agentis* is preserved in the Slavonic *-tel-* (§ 122): nom. pl. *žę-tel-e* 'cutters, reapers' = Idg. **ghē-téres*.

Amongst the names of kindred, **bhrā-tor-* (Gr. *φρά-τορ-α*, Goth. *brō-þar*) seems to have been associated even in the parent language with forms that had *-τέρ-*, such as **pā-tér-*; e. g. an acc. **bhrā-ter-m* was formed beside **bhrā-tor-m*. Hence in Greek we find the by-forms *φρά-τηρ* *φρά-τερ-ες*, in Sanskrit *bhrā-tar-am*, in Latin *frā-ter*; hence perhaps O.H.G. acc. *bruo-der* as well as *bruo-dar*. Yet while **bhrā-ter-m* arose by the side of **bhrā-tor-m*, no such form as **syésor-m* came into use beside **syésor-m* (Skr. *svāsār-am*, Lat. *sor-or*), the reason perhaps being that the absence of *t* in the word prevented its association with forms like **pā-tér-* **mā-tér-*. But Avestic, West-Germanic and Lithuanian ultimately brought the word 'sister'

into close connexion with the other names of kindred; thus acc. Avest. *zwanhar-em*, O.H.G. *swester*, Lith. *sėser-i* (see below).

In Latin the nominative termination *-(t)ōr* spread through all the cases: *da-tōr-em da-tōr-is* etc., *sor-ōr-em sor-ōr-is* etc.

In Greek *-τωρ-* is only found in the nom. sing. except in an isolated example: Hom. *μῆσ-τωρ-α μῆσ-τωρ-ες*.

In Gothic *fadar* (contrast *πατήρ-α*) was formed in imitation of *brōþar* (*φρεῖτορ-α*) *svistar* (cp. *ζωρ-ες*); in Old High German the forms with *e*, such as *fater muoter*, had prevailed over *bruodur* etc. before the date of the earliest monuments of the language.

In Lithuanian we have *sesū*, but acc. *sėser-i* gen. *seseř-s* and so forth with *-er-*: here the analogy of *dūk-ter-i* (*δυγα-τήρ-α*) *duktėř-s* etc. has influenced the forms, aided perhaps by the original loc. sing. in **-er-i* (Skr. *svasar-i*).

Compare the relations of Ablaut in the *n*-stems, which are on the whole similar, § 113 p. 342 ff. and what is said in the Remark there.

§ 121. Ablaut within the root-syllable varied *pari passu* with the variation in the suffix. **pə-tér-* 'father' Skr. *duhitár-* etc. 'daughter' have the weak-grade-vocalism; on the other hand **mā-tér-* 'mother' has that of the strong grade. Cp. I § 670 p. 535. Skr. *uṣ-ár-* 'dawn' beside Gr. *ἥρι* loc. 'early' for **āv(σ)-ερ-* and *ἄριστο-ν* for **āv(σ)-ερ-* (see § 122 p. 381).

In *nomina agentis*, the strong form of the root generally prevailed in Aryan, and that with either accentuation (*dā-tar-* and *dā-tár-*); a few variations from this type seem to have survived from the period before varying forms were levelled; as Skr. *savyē-ṣṭhar-* 'the warrior who stands to the left of the charioteer' (*-sthar-* = **-st-tor-*) beside *sthā-tár-* *sthā-tar-*, Avest. *a-frītar-* 'magician' beside Skr. *prē-tár-* 'benefactor, lover', Avest. *yūx-tar-* beside Skr. *yōk-tár-* 'yoker', Avest. *ker^o-tar-* beside Skr. *kar-tár-* 'doer'. In Greek we have *δο-τήρ* : *δώ-τωρ*, *βο-τήρ* : *βώ-τωρ*, cp. also *πο-τήρ* *-δετήρ* *βα-τήρ* and *ἀφ-ήτωρ*; but we also find *δω-τήρ* *ζευκ-τήρ* and *ῖσ-τωρ* (*ῖσ-τωρ*) with exactly the converse accentuation. In Latin, where *-tēr* was displaced by *-tōr* (*-tor*), we have *sta-tor* and *stā-tor*, *da-tor*, *sa-tor*, *condi-tor* and *pō-tor*, Umbr. *fertur* (Skr. *bhār-tar-* *bhar-tár-*). In the case of *in-ventor cēnsor* and the like it is impossible to say whether we have the weak or the strong grade. The Latin participles

da-tūru-s etc. follow the perf. part. (*da-tu-s*). In Slavonic we find both the strong (*da-telŭ, sŭ-dětelŭ, bljus-telŭ*) and the weak grade (*žrŭ-telŭ*).

§ 122. Indo-Germanic. **daiuér-* **daiuŕ-* and no doubt also **daiur-* (I § 155 Rem. p. 140¹) 'husband's brother, brother-in-law': Skr. *dēvár-*, Armen. *taigr* gen. *taiger* (*g* for *u*, I § 162 p. 145), Gr. *δαήρ* for **dauFŕo* (I § 96 p. 90), Lat. *lēvir* (gen. *lēviri*) for **lēver* through popular association with *vir* (cp. also I § 369 p. 279 f.), A.S. *tācor* O.H.G. *zeihhur* (for the *c* and *hh* see Bugge, Paul-Br. Beitr. XIII 575), Lith. gen. sing. *dēvēř-s* (nom. sing. *dēver-ŭ-s* whence the by-form of the gen. *dēver-ės*; the word is also declined as an *io*-stem; the true nom. **dēvē* = Skr. *dēvā* Gr. *δαήρ* no doubt dropped out of use owing to its gender and to avoid confusion with *dēvē* 'goddess') O.C.Sl. *dēver-ŭ*. Skr. *n-ār-*, Gr. *άν-ήρ*, gen. *άνδρ-ός*, 'man', *δρ-ώψ* 'human being' (Hesych.) for **vŕo-* (I § 204 p. 170), Umbr. *ner-f* acc. 'proceres' *ner-us* 'proceribus'. Skr. *uś-ār-* 'early light, dawn' Gr. *ἡρι* adv. loc. 'early' for **ἡεŕ-* **āus-er-i* (*ἡεŕ-ιο-ς* 'early'), beside which we have *ἄρι-στο-ν* doubtless for **aus-er-* (I § 312 p. 249 f.), cp. also *ἄλλ-αυρο-ς* 'close on morning' *αὐρ-ιο-ν* 'morrow, morning' (for **aus-* or **āus-*) and Lith. *auszrā* 'red of the morning' (§ 74 p. 180). **sueśor-* **suesŕ-* **suesr-* 'sister' (cp. p. 9 footnote, and § 120 Rem. p. 379 f.): Skr. *svásar-* Armen. *šoir* gen. *ker* (I § 560. 561 p. 416 f.), Lat. *sor-or* and *sobr-īnu-s* (I § 570 p. 428), O.Ir. *siur* Cymr. *chwaer* (for **chwear-*), Goth. *svistar* instead of **svisar* through the influence of *svistr-s* etc. (I § 580 p. 433 f.), Lith. *sesū* gen. *seseřs*, O.C.Sl. *sestr-a* (I § 585 p. 439); we must no doubt class here Gr. *ἑορ* (vocat.) *θυγάτηρ, ἀνεψίος* and *ἑορ-ες* *προσθήκοντες, συγγενεῖς* Hesych. (*ē-* for *ī-* I § 564 p. 421), where the meaning has changed.

**pə-tér-* 'father': Skr. *pitár-*, Armen. *hair* gen. *haur*, Gr. *πα-τήρ* (note its form in compounds, e. g. *μητρο-πάτωρ*), Lat. *pater*, O.Ir. *athir*, Goth. *fadar*. **ma-tér-* 'mother': Skr. *mátár-*,

1) In this Remark a full stop should be inserted after the word 'formation'; and in the preceding paragraph (§ 155) l. 4 read 'prim. Ar. **atharun-* ('fire-priest') not **atharyn-*, instead of 'for *atharyn-*'.

Armen. *mair* gen. *maur*, Gr. μήτηρ gen. μητρ-ός (the accent of μήτηρ no doubt follows that of the voc. μητρε) (προ-μήτωρ), Lat. *māter*, O.Ir. *māthir*, Goth. *muoter*, Lith. *motė* and *motė* ('woman, wife') O.C.Sl. *mati*. Skr. *duhi-tār-* Gr. θυγά-τηρ (like Skr. *dami-tār-* Gr. παν-δαμά-τωρ, p. 383) Armen. *dustr* (the *st* is obscure) Goth. *daúh-tar* (early Norse nom. pl. *doh-tr-i-k* like Gr. Hom. θυγά-τηρ-ες) Lith. *duk-tė* O.C.Sl. *dŭšti* 'daughter'.

**bhrā-tor-* and later **bhrā-ter-* 'brother' (cp. § 120 Rem. p. 379): Skr. *bhrātār-*, Armen. *elbair* gen. *elbaur*, Gr. φράτωρ φράτηρ (member of a φρατρία), Lat. *frāter*, O.Ir. *brāthir*, Goth. *brōþar*, Lith. *broter-ėli-s* ('little brother'), O.C.Sl. *bratr-ŭ* (from which came *bratŭ* by dissimilation, as *prostŭ* from **pro-strŭ*, Miklosich, Etym. Wtb. p. 321) like *sestr-a*.

Nomina agentis (in Sanskrit the acc. always has *-tār-*, in Gr. *-τορ-* excepting μήτωρ, and *-τήρ-*, in Lat. all cases have *-tōr-*). Skr. *pura-ētār-* 'he who precedes, guide', Lat. *praetor*, √ *ei-*. Skr. *vēttar-* 'knower', Gr. ἴστωρ ἴστωρ 'knower, witness', Lat. *vīsor in-vīsor*, O.C.Sl. *sŭ-věstelŭ* 'conscious, witness' (*ě* in place of Idg. *o* is not original), √ *ueid-*. Skr. *yōk-tār-* Avest. *yāx-tar-* 'yoker', Gr. ζευκ-τήρ 'yoke-strap' ζεύκ-τειρα 'binder (f.)', Lat. *jūnc-tor*, √ *jeug-*. Skr. *bōddhar-* 'he who knows, or understands something', Gr. πειστήρ-ιος 'questioning, inquiring', O.C.Sl. *bljstel-ŭ* 'watchman', √ *bheudh-*. Skr. *bhar-tār- bhār-tar-* 'bearer, supporter, nourisher', Lat. *in-fertor* Umb. *aī-fertur* 'infertor, flamen'. Skr. *gān-tar-* 'he who goes, comes', Gr. βα-τήρ βαίνων, βυδιστικός (Hesych.), ἐπι-βήτωρ 'mounter, coverer', Lat. *in-ventor*, √ *gem-*. Skr. *han-tār-* 'he who strikes, kills, murderer', O.C.Sl. *žę-tel-ŭ* 'cutter', √ *ghen-*. Skr. *śās-tar-* 'he who recites', Osc. *cens-tur* 'censor', √ *kens-*. Skr. *pak-tār-*, 'he who cooks, broils, bakes', Gr. πέπ-το-ια 'cook (f.)' (late), Lat. *coc-tor*, √ *peq-*. Skr. *sāttar-* 'he who sits', Lat. *ad-sessor*, √ *sed-*. Skr. *dhā-tār- dhā-tar-* 'he who places, creator', Gr. θε-τήρ 'placer' (late), Lat. *con-ditor*, O.C.Sl. *sŭ-dětel-ŭ* 'conditor', √ *dhē-*. Skr. *sthā-tār-* 'standing, not moving' *sthā-tar-* 'charioteer' *savyē-ṣṭhār- savya-ṣṭhār-* 'the warrior who stands to the left of the charioteer' i. e. *-*st* + *tar-* (cp. Germ. **fir-sti-* § 100 p. 297), Gr. στα-τήρ a

weight and a coin ἀπο-στειρή *'apostate'*, Lat. *Juppiter Stā-tor*, *sta-tor ob-stetr-ī-x*, √ *stā-*. Skr. *pā-tār- pā-tar-* 'drinker', Gr. πο-τήρ *'drinking vessel, goblet'* οἶνο-ποτήρ *'wine-drinker'*, Lat. *pō-tor*. Gr. ἄκ-τωρ *'leader'* ἐπ-ακτήρ *'he who goes out for prey, hunter'*, Lat. *āc-tor āc-tr-ī-x*, √ *ag-*. Avest. *zba-tar-* 'panegyrist' O.C.Sl. *zva-tel-ī*. Skr. *jñā-tār-* 'knower, acquaintance', Gr. γρωστέρ *'witness for the truth of a statement'* (-σ- is an analogical insertion as in γρωστός beside γρωτός), Lat. *nō-tor*, O.C.Sl. *zna-tel-ī* 'knower'.

Skr. *dami-tār-* 'tamer', Gr. παρ-δαμά-τωρ *'vanquisher of all'*, Lat. *domi-tor*. Skr. *jani-tār-* Gr. γενε-τήρ *'begetter'*, Lat. *gene-tr-ī-x*.

Aryan. Skr. *dēv-ār-*, Skr. *n-ār*. Avest. *n-ar-* 'man', Skr. *uś-ār-*, Skr. *svās-ar-* Avest. *xwānsh-ar-* 'sister' (§ 120 p. 379); see above, p. 381. Skr. *nīnānd-ar-* 'husband's sister' is an analogical formation, cp. *nand-inī-* the same. Here should perhaps be classed Avest. *atar-* (acc. *atar-em*, nom. (a re-formation) *atarš*) m. 'fire'; *t* is in place of pr. Ar. *th*, as is shewn by Skr. *ātharvan-* and Avest. *āpravan-*.

Skr. *pi-tār-* Avest. *pi-tar- p-tar* (I § 473, 2 p. 349) O.Pers. *pi-tar-* (gen. *piša*, I § 261 p. 261 p. 213) 'father', Skr. *mā-tār-* Avest. O.Pers. *mā-tar-* 'mother', Skr. *duhi-tār-* Avest. *dug'dar-duydar-* 'daughter', Skr. *bhrā-tar-* Avest. O.Pers. *brā-tar-* 'brother', see p. 382 above. Skr. *jāmātar-* Avest. *zāmātar-* 'son-in-law'.

In proethnic Aryan *napāt-* *napt-* 'offspring, descendant' (§ 123) was associated with the names of kindred, first in the weak cases: Skr. *nāptar-* Avest. *naptr-* (cp. Czech *neti* below); yet the acc. sing. is Skr. *nāptāram* Avest. *naptārem*, like *svā-sāram*. Skr. gen. *pātyur* 'mariti' like *pitūr* (see Wackernagel, Kuhn's Ztschr. XXV 290).

Remark. In § 114 Rem. 1 p. 348 and § 117 Rem. 2 p. 369 mention was made of the transference of nominatives in *-ā* and *-mā* to the *ā*-declension; we see the same thing in Prākṛit, where *duhidā* 'daughter' and *mādā* 'mother' were inflected like *ā*-stems. Similarly, in Lithuanian *in-tė* 'brother's wife', and in some dialects also *sėsė* 'sister', which is found side by side with *sesū*, were declined as *ē*-stems.

The class of *nomina agentis* was very fertile. Skr. *upa-kṣétár-* 'adherent', Avest. *xšaē-tar-* 'ruler'. Skr. *jē-tar-* 'conqueror'. Avest. *vi-ḍaētar-* 'one who looks around, spy'. Skr. *śrō-tar-* 'hearer', Avest. *srao-pr-i-* f. 'hearer (f.)'. Skr. *hō-tar-* Avest. *zao-tar-* 'high priest'. Skr. *stō-tár-* Avest. *stao-tar-* 'one who sings praises'. Skr. *jōṣ-tár-* *jōṣ-tar-* 'lover, protector' O.Pers. *dauš-tar-* 'friend': cp. Gr. *γέυσ-τήρ-ιο-ν* 'vessel for tasting, goblet', √ *ḡeys-*. Skr. *vāḍhar-* 'carrier, draught-horse' Avest. *vaš-tar-* 'draught animal' (I § 482 p. 356): Lat. *vec-tor-*, √ *uegh-*. Skr. *han-tár-* 'he who strikes, kills, murderer', Avest. *jan-tar-* 'killer, slayer' O.Pers. *jatar-* (read *jantar-*) 'slayer, foe': O.C.Sl. *žę-tel-ī*, see above p. 382. Skr. *bhar-tár-* *bhár-tar-* Avest. *bar^e-tar-* *bāšar-* *ber^e-tar-* 'bearer, supporter' (cp. § 120 p. 378): Lat. *in-fertor*; see above, p. 382. Skr. *dhar-tár-* 'bearer, supporter', Avest. *der^e-tar-* 'holder'. Skr. *kar-tár-* *kár-tar-* Avest. *ker^e-tar-* 'doer'. Skr. *draṣ-tár-* 'he who sees', √ *derḱ-*. Avest. *har^e-tar-* 'guardian, protector'. Skr. *sáttar-* 'sitter', Avest. *aiwi-šastar-* 'he who sits': Lat. *ad-sessor*; see above, p. 382. Skr. *dāgdhar-* 'incendiary' √ *dhegh-*. Skr. *dhā-tár-* *dhā-tar-* Avest. *dā-tar-* 'he who places, creator': Gr. *θε-τήρ* etc., see p. 382 above. Skr. *mā-tar-* 'measurer', O.Pers. *fra-matar-* 'master', √ *mē-*. Skr. *dā-tár-* *dā-tar-* Avest. *dā-tar-* 'giver': Gr. *δο-τήρ* *δω-τήρ* *δω-τωρ* Lat. *da-tor* (*da-tr-i-x*) O.C. Sl. *da-tel-ī* 'giver', √ *dō-*. Skr. *sthā-tár-* 'standing' *sthā-tar-* 'charioteer, driver' *savyē-ṣṭhar-* *savya-ṣṭár-* 'the warrior who stands to the left of the charioteer', Avest. *raḫaē-štar-* 'the warrior who stands in the chariot': Gr. *στα-τήρ* etc., see p. 382 f. Skr. *pā-tár-* *pā-tar-* Avest. *pā-tar-* 'protector, guardian'. Skr. *yaṣ-tár-* Avest. *yaš-tar-* 'offerer', √ *iaḡ-*. Skr. *vi-bhaktár-* Avest. *bax-tar-* 'divider', √ *bhag-*. O.Pers. *a-yastar-* 'possessor' from Ar. *yat-* 'strive'. Skr. *śās-tár-* Avest. *sās-tar-* 'master'. Skr. *jñā-tár-* 'knower, acquaintance' Avest. *žnā-tar-* 'learner, knower' (according to I § 403 p. 298 we should expect *šnā-tar-*): Gr. *γνωστήρ* etc., see above, p. 383. Skr. *trā-tár-* Avest. *prā-tar-* 'protector'. Skr. *yá-tar-* 'he who goes, is on the way'. Avest. *a-snātar-* name of a priest who is responsible for ablutions.

Skr. *dami-tár-*, *jani-tár-*; see above, p. 383. Skr. *jari-tár-* 'singer', Cp. Avest. *aibi-jar'tar-* 'praiser'. Skr. *pavi-tár-* 'purifier', *vardhi-tár-* 'increaser', *vēdi-tar-* 'knower'. Avest. *daibi-tar-* 'deceiver'. Skr. *prati-grahītár-* 'receiver' *grābhī-tar* 'seizer'. Skr. *taru-tár- tāru-tar-* 'subduer'. Skr. *cōdayi-tár-* beside *cōdi-tár-* 'inciter'.

Towards the end of the Vedic period of Sanskrit, the nom. sing. du. pl. masc. of these *nomina agentis* began to be used with the present of *as-* 'esse' as a periphrastic future (cp. Lat. *datūrus sum*), which became a favourite construction in the classical period. In the third person the copula was usually omitted, and the form of the nom. sing. which had become fused with the verb, was generally kept even in the first and second persons of the plural and dual. Sing. *datāsmi* 'I will give' *datāsi datā*, du. *datāsvas datāsthas datārau*, pl. *datāsmas datāstha datāras*. Rarely 3 sing. *datāsti*, 1. du. *datārau svas* and the like.

The adjectival character of the *nomina agentis* created a neuter form for them in Sanskrit; thus nom. acc. sing. *da-tf* (in Veda also *-tūr*, see I § 285 p. 228), pl. *-tñi* etc. Cp. Lanman, Noun-Infl. p. 421 ff.

Armenian. Here are found only names of kindred, all of which have been already mentioned: *taigr* 'brother-in-law', *koir* 'sister', *hair* 'father', *mair* 'mother', *dustr* 'daughter', *elbair* 'brother'; see above, p. 381 f.

Greek. *δᾱήρ* 'brother-in-law', *ἀνήρ* 'man', *ἥρι* 'early' *ἔορ-ες* *προσηκοντες*, see above, p. 381. *ἄήρ*, gen. *ἄέρ-ος*, f. m. 'air', Lesb. *αὔηρ*, compare *αὔρα* 'air'. *αἰθήρ*, *αἰθέρος*, f. m. 'aether', compare *αἰθήρα*.

πατήρ 'father', *μήτηρ* 'mother', *θυγάτηρ* 'daughter', *φράτηρ* 'member of a *φρατρία*'; see above, p. 381 f. *εἰνά-τερ-ες* 'women married to brothers': Skr. *yā-tar-* (acc. *-tar-am*) 'husband's brother's wife' (probably for **īṣ-ter-*, see I § 253 p. 207), Lat. *jani-tr-ī-c-ēs* (§ 119 p. 377), Lith. *in-tė* (gen. *in-tės*, cp. the Remark on p. 383) 'brother's wife'; it is still doubtful what we should assume as the original form of the root-syllable; there seem to have been both a form with *ə* following the root-syllable,

and a form without, as in Skr. *duhi-tár-*: Goth. *daúh-tar*. γασ-*-τήρ* 'belly'.

The *nomina agentis* in *-τηρ-*, *-τορ-* were a fertile class. ἴστωρ ἴστωρ 'knower, witness', ἐπι-ίστωρ 'conscius': Skr. *vṛttar-* etc.; see above, p. 382. φύ-τωρ 'begetter': Osc. Fuutr-eí 'Creatrici, Genetrici', cp. also Skr. *bhavi-tar-* 'impending, future', √ *bhe-*. βα-τήρ 'βαίων, βαδιστικός (Hesych.)', ἐπι-βήτηρ 'mounter, coverer': Skr. *gán-tar-* etc.; see above, p. 382. βο-τήρ βώ-τωρ 'herdsman', πολυ-βόττιρα f. 'much-nourishing'. ἀφ-ήτηρ 'slinger, shooter': Lat. *sa-tor*, √ *sē-*; some scholars add Skr. *s-tr-ī* 'wife' (cp. Lat. *sator* 'begetter') which as regards the form of the root-syllable hears the same relation to *sa-tor* and *-ήτηρ* as Skr. *savyē-ṣthar-* to Gr. στα-τήρ and Skr. *sthā-tár-* (p. 382 f.). ἀμαλλο-δετήρ 'sheaf-binder': Skr. *nī-dātár-* 'fastener', √ *dē*. ἄκ-τωρ 'leader' ἐπ-ακτήρ 'he who goes out for prey, hunter': Lat. *ac-tor*. ἀλάστωρ 'not forgetful of punishment, avenging deity' beside ἄ-λαστο-ς λήθ-ω. λαμπ-τήρ 'lighter'. ὀπ-τήρ δι-οπτήρ 'watcher, spy'. ζωσ-τήρ 'girdle'. δια-βλήτωρ 'slanderer' (late). κρᾶ-τήρ 'mixing vessel'. δμη-τήρ 'subduer', Δμή-τωρ, δμη-τειρα 'subduer (f.)'. θηρᾶ-τήρ θηρη-τήρ, θηρᾶ-τωρ θηρή-τωρ 'hunter' (θηράω), κυβερνη-τήρ 'steersman' (κυβερνάω), αὐλη-τήρ 'flute-player' fem. αὐλη-τρ-ίς (αὐλέω), κοσμή-τωρ 'commander' (κοσμέω), μισθώ-τρ-ια 'procuress' (μισθόω). ληιστήρ λήιστωρ 'plunderer, robber' (ληίζομαι). σημάν-τωρ 'commander' (σημαίνω). φυλακ-τήρ 'watchman' (φυλάσσω for *-ακ-ιω).

παν-δαμά-τωρ, γενε-τήρ γενέ-τωρ, see above p. 383. ἄλ-ι-τρ-ίς 'miller (f)': ἄλ- for ἡλ-? cp. Lat. *mol-i-tor*.

With *-τωρ-* we find only μήσ-τωρ, Homer. acc. *-τωρ-α*, 'counsellor' (but as a proper name Μήστορ-α), beside μῆδ-ομαι.

Italic. Lat. *lēvīr* modified in form by popular etymology; see above, p. 381. Umb. *ner-f* 'proceres'; see above, p. 381. Lat. *soror* for **smesōr*, see above, p. 381.

Lat. *pa-ter* Umbr. Iu-pater 'Juppiter' Iuve patre 'Jovi patri' Osc. patír 'pater' patereí 'patri' (I § 627 p. 471) Marruc. *patres* 'patris', Lat. *mā-ter* Umbr. *matrer* 'matris' Osc. *maatreis*

'matris', Lat. *frā-ter* Umbr. *frater* 'fratres' *fratrom* 'fratrum'; see above, p. 382. Lat. *ven-ter*.

In the group of *nomina agentis* we may assume that *-tōr-* had prevailed in all cases even in proethnic Italic; only the derivatives show *-tr-*. The formation seems to have been in active use in all dialects.

Lat. *in-fertor*, Umbr. *ař-fertur* 'infertor, flamen' acc. *ars-ferturo* dat. *-ferture*: Skr. *bhar-tār-*; see above, p. 382. Lat. *ē-versor*, Osc. *ḙεσορεῖ* (o to be read long) **Versori*, *Ῥροναλω*, *✓uert-*. *cēnsor* (cp. § 79 Rem. 2 p. 231), Osc. *censtur* *keensztur* (for the *zs* see I § 209 p. 176), 'censor': Skr. *śās-tar-*, see p. 382 above. Lat. *in-spector*, Umbr. *speture* 'spectori' *speturie* dat. 'spectoriae': Avest. *spas-tar-* 'watchman'. *✓spek-*. Lat. *auc-tor*, Umbr. *uhtur* 'auctor' *uhturu* 'auctorem' *uhtretie* 'auctoritate'. Osc. *embratur* 'imperator', *regaturei* 'rectori'.

Lat. *pīs-tōr* *pīns-tōr* *pīs-tr-ī-x*: Skr. *pēṣ-ṭar-* 'grinder, crusher'. *fictor*. *vīc-tor*. *duc-tor*. *ūs-tor*. *dē-sertor*. *tortor* for **torc-tor*, from *torqueō*. *com-mentor*: Skr. *man-tār-* 'thinker', Gr. *Μέν-τωρ*, *✓men-*. *tex-tor*: Skr. *tāṣ-ṭar-* 'foreman, architect, carpenter', *✓teks-*. *ēsor* *ēstr-ī-x*: Skr. *attār-* 'eater', Gr. *ὠμηστήρ* 'eating raw food' (late) *νήστειρα* f. 'fasting' (late). *messor*. *cor-rēctor*. *rap-tor*. *can-tor*. *al-tor*. *oc-cīsor*, from *caedō*. *sū-tor*. *sprē-tor*. *im-plētor*. *viē-tor*. *flā-tōr*. *cūrā-tor*, *bellā-tor*; *fīnī-tor*.

Lat. *domi-tor*, *geni-tor*; see above, p. 383. *meri-tōr-īu-s* *mere-tr-ī-x*. *dēbi-tōr*. *moli-tor*. *moni-tor*.

The connexion of the Latin participles in *-tūru-s*, such as *da-tūru-s*, with these *nomina agentis* can not be denied, but the *ū* is obscure (I § 89 p. 85).

In Old Irish only the names of kindred remain.

siur, acc. Mid.Ir. *siair*, 'sister'; see above, p. 381; through the influence of names of kindred in *-ter-* arose the forms gen. *sethar* acc. *sethir* dat. pl. *sethraib*.

athir 'father', *māthir* 'mother', *brāthir* 'brother', see above p. 381 f. To these the word for 'uncle' was assimilated, Mod.Cymr. *ewi-thr* O.Corn. *eui-ter*, cp. Lat. *avun-culu-s*.

Germanic. *scist-ar* O.H.G. *swest-er* 'sister', see above p. 381.

Goth. *fa-dar dauh-tar brō-þar* O.H.G. *fater muoter tohter bruoder*; see above, p. 381 f. In O.H.G. another word seems to have been associated with these: *swiger*, gen. *swiger*, 'mother-in-law' (Skr. *śvaśrū-*).

In Gothic, *-tru-m* (for **-tr-mi*) in the dat. pl. and *-tr-uns* (for **-tr-ys*) in the acc. pl. gave rise to the nom. pl. in *-trjus*, as *brōþrjus*, after the analogy of the *u*-declension. In Old High German the names of kindred were also declined as *o*-stems and as *a*-stems (according to their gender), but the feminine forms occur only in the pl., and not until a late period. Thus we have gen. sing. *fateres* beside *fater*, gen. pl. only *faterā*, gen. pl. *tohterā* beside *tohter*.

Of the *nomina agentis* we have only doubtful traces. A.S. *bæcestre* f. 'baker (f.)' and the like; see § 110 p. 336. A.S. *bealdor* O.Icel. *baldr* 'chief', O.H.G. *smeidar* 'artifex', see Kluge, *Nominale Stammbildungsl.* § 30. O.H.G. *friu-dil fri-dol* m. 'beloved' O.Icel. *fri-dill* 'concubinus': O.C.Sl. *prija-tel-i* 'friend' Avest. *a-frūtar-* 'one who pronounces a blessing' Skr. *prē-tar-* 'benefactor, lover': *l* must have arisen in Germanic, as in Slavonic, (*-tel-ŷ*) through dissimilation, cp. *murmulōn* etc. I § 277 p. 221; but there is difficulty in explaining the relation of the vowels in the root-syllable (cp. Brate in Bezenb. Beitr. XI 187).

Balto-Slavonic. Lith. *dėver-i-s* gen. *dėvėr-s* O.C.Sl. *děver-ŷ* 'brother-in-law', Lith. *sesū* gen. *seseřs*, also nom. *sēsė* on the analogy of *mótė* etc. (cp. the Remark on p. 383), O.C.Sl. *sestra* 'sister', see above, p. 381.

Lith. *mo-tė* and *mó-tė* 'woman, wife' O.C.Sl. *mati* 'mother', Lith. *duk-tė* O.C.Sl. *dūšti* 'daughter', Lith. *bro-ter-ėli-s* 'little brother'. O.C.Sl. *bra-tr-ŷ bra-tū* 'brother', see p. 382 above. Lith. *in-tė* (gen. *intės*) 'brother's wife' (O.C.Sl. *je-tr-y* like *svėkry*): Skr. *yā-tar-* etc., see p. 385 above; a confusion with *genti-s* 'a relative' (m. f.) gave rise to the form *gent-ě* gen. *gentěř-s* or *gentěs* 'husband's brother's wife'. In Czech the inflexion of *neti* f. 'niece' (= Skr. *napt-i*) was assimilated to that of the

names of kindred, partly in consequence of the similar ending of the nom. sing.: thus gen. *neter'-e*, like *mater'-e*; cp. Skr. *náptar-* p. 383.

The class of *nomina agentis* is found only in Slavonic, where it was fertile. In Lithuanian these forms were displaced by those in *-toji-s* = O.C.Sl. *-tajĩ*, as *ar-tóji-s* = O.C.Sl. *ra-tajĩ ora-tajĩ* 'arator'; as to Lith. *-klė* see I § 281 Rem. 1 p. 224. Slav. *-tel-* arose from *-ter-* by dissimilation; see I § 281 p. 224. *-tel-* without any additional suffix is still found in nom. gen. instr. pl., *-tel-e*, *-tel-ü*, *-tel-y* although the two latter forms may also be regarded as belonging to the *o*-decl.); elsewhere we have *-tel-je-*. *sü-věsteli* 'conscious, witness', *bljusteli* 'watchman', *žę-teli* 'reaper', *sü-dětelĩ* 'conditor', *zva-teli* 'caller', *zna-teli* 'knower'; see above, p. 382 f. *da-teli* 'giver', see above, p. 384. *prija-teli* 'friend', see above p. 388. *žři-teli* 'offerer, priest'. *olas-teli* 'commander' (*vladaq* 'I command, rule'), *zi-teli* 'inhabitant', *děla-teli* 'worker'. *sü-birateli* 'collector'. *umě-teli* 'one who understands'. *sü-věděteli* 'conscious, witness'. *prosi-teli* 'beggar'. *goni-teli* 'follower'. *-iteli* was also used as an independent suffix: e. g. *po-dad-iteli* 'lender, bail, security', *po-greb-iteli* 'burier'.

VII. Suffixes in *-t*.

§ 123. The Suffix *-t*¹⁾. In the proethnic language this was a primary suffix; and it was most frequently found, as its use in Sanskrit, Greek and Latin shews, in the final members of compound words. These had the force of a participle, which was generally active and could be either an adjective or substantive. But *-t* is used in this way only with roots which end in vowels, liquids, or nasals, such as *ei-*, *dhē-*, *bher-*, *ghen-*. Skr. *arthēt-* (*artha-t-t*) 'busy, in haste', Lat. *comes* stem *com-i-t* (properly 'one who goes with'), √ *ei-*. Avest. *fratema-dā-t* 'one set first, set in front, chief', Gr. *ῥῆς*, gen. *ῥῆ-ρός*, 'hired labourer', √ *dhē-*. Avest. *praotō-stā-t* adj. 'in the rivers', Lat. *anti-sti-t*, √ *stā-*.

1) De Saussure, Le suffixe *-t*, Mémoires de la Soc. de Ling. III 197 ff.

Here must be classed **nepōt- *nept-* (Skr. *nāpāt* 'offspring, descendant' instr. *nādbhiṣ* for **nabd-bhiṣ*, Lat. *nepōs*, Mid.Ir. *niae*, gen. *niath*, 'sister's son', O.H.G. *nefo* 'nephew, relative' Goth. *nīp-jī-s* 'cousin, relative', O.Icel. *nið-r* 'offspring', O.C.Sl. *net-ijŕ* 'nephew, cousin', see I § 527 Rem. 1 p. 382, § 545 p. 399), if it belongs to the root of **pə-ter-* 'father' and if its original meaning was 'not having (a father's) protection, belonging to the family of uncle or grandfather', and hence 'nephew' or 'grandson'; see E. Leumann, *Festgruss an Otto von Böhtlingk* 1888 p. 77 f.

Next should be mentioned *noq-t-* 'night' (beside **noq-ti-*, cp. the suffix *-tāti-* beside *-tat-* § 102 p. 308): Skr. *nāk-t-* (Gaedicke, *Der Acc. im Veda* 177, B. Kahle, *Zur Entwicklung der Consonant. Decl. im Germ.* 32 f.), Gr. *νύξ νυκ-τό-ς*, Lat. *nox* (which also forms *i*-cases), O.Ir. *in-nocht* 'hac nocte', Goth. gen. *nah-t-s* dat. *nah-t*, O.Lith. gen. pl. *nak-t-u*.

We also find a few substantive numerals (with by-forms in *-ti-*, see § 101 p. 306 f.). **dekṇ-t-* 'decade': Skr. *daśāt-*, Gr. *δεκάς* gen. *δεκάδ-ος* (for the *δ* see p. 392), Lith. pl. *dėszimt-s* O.C.Sl. pl. *deset-e*. In this way were formed Skr. *pañcāt-* Gr. *πεντάς* *πεντάς* 'a group of five' (I § 427 a p. 312) beside Skr. *pāñca* Gr. *πέντε* 'five', and other examples.

Lastly we find a certain number of nouns in different languages with a short vowel between the root and *-t-*; as Skr. *sravāt-* f. 'river', Lat. *teges*, gen. *teget-is*, f. 'covering', Goth. *mitap-s*, stem *mitad-* f. 'measure', Skr. *vāghāt-* 'praying', Gr. *ἀργέτ-* 'gleaming', Lat. *teres*, gen. *teret-is*, 'turned, round, long'. Not one of these nouns appears in more than one language. Nevertheless it is natural to derive them from a common source.

In several branches of Indo-Germanic, particularly in Aryan, this suffix *-t-* was taken widely into use in combination with others by which it was extended. The new compound suffixes were used independently and became fertile, e. g. Skr. *-t-nu-*.

Aryan. Skr. *arthēt-*, Avest. *fratema-đat- praotō-stat-*, see above p. 389. Skr. *viśva-jī-t-* 'obtaining all by conquest', Avest. *iśasem-jī-t-* 'subduing, suppressing one's wish'. Skr. *deva-stū-t-*

'praising the gods', Avest. *ahūm-stu-t* 'praising the world'. Skr. *dēva-śrū-t-* 'heard of the gods, audible to them'. Skr. *vajra-bhṛ-t-* 'bearing the thunderbolt', Avest. *aš-ber^e-t-* 'enduring much' *ā-ber^e-t-* 'purveyor' (appellation of a priest's assistant). Skr. *su-kṛ-t-* 'behaving well', Avest. *yās-ker^e-t-* 'transacting business'. Avest. *taxmār^e-t-* (*taxma-ar^e-t-*) 'pressing on hard'. Skr. *adhva-gá-t-* 'on the way, traveller', $\sqrt{\text{gem-}}$. Less often in unpounded words: Skr. *rt-t-* 'running', *hrú-t-* 'injurer, foe', Avest. *stū-t-* 'praiser'. Moreover these *-t-*stems are found in Aryan as feminine abstract substantives: Skr. *sam-i-t-* 'hostile meeting', *ni-yú-t-* 'team', *stú-t-* 'praise, song', *vṛ-t-* 'company, following, troop, band', Avest. *xšnūt-* 'wisdom'. For the Skr. *nápat- nápt-* 'offspring, descendant' Avest. *napāt- napt-* (fem. Skr. *napt-ī-* Avest. *napt-ī-*) see above p. 390, and for Skr. *náptar-* Avest. *naptar-* § 122 p. 383.

Extensions of this suffix gave rise to the suffixes *-tya-*, e. g. Skr. *kṛtya-s* 'faciendus' § 63 p. 123 f., *-tnu-*, e. g. Skr. *kṛtnú-ṣ* 'active' § 106 p. 320, *-tvan-*, e. g. Skr. *kṛtvan-* 'effecting' § 116 p. 364. Compare Skr. *mṛ-t-yú-ṣ* 'death' § 105 p. 318 f.

Skr. *nák-t-* 'night', see above p. 390. Skr. *daśát-* 'a group of ten' *pañcát-* 'a group of five', see above, p. 390.

A few Sanskrit nouns have *-at-* *-it-*. *sravát-* f. 'river'. *vahát-* f. 'stream'. *saścát-* f. 'stopping, check'. *vēhát-* f. 'a cow which yeans prematurely, casts'. *vāghát-* 'praying, one who prays'. *sarít-* f. 'river, brook'. *yōṣít-* f. 'girl, maiden'. *harít-* 'tawny'. There is one word in *-út-*: *marút-* name of the storm-gods.

Greek. *θής*, gen. *θη-τ-ός*, 'hired labourer', see p. 389 above. *πλώς*, gen. *πλω-τ-ός*, 'swimmer' name of a fish. *ὠμο-βρώς*, gen. *-βρω-τ-ος*, 'devouring raw flesh' ($\sqrt{\text{ger-}}$, cp. I § 306 p. 242). *ἀγνώς*, gen. *-γνω-τ-ος*, 'unknown, not knowing'. *προ-βλής*, gen. *βλη-τ-ος*, 'thrown forward, springing forward, prominent'. *δορυ-κμής*, gen. *-κμη-τ-ος*, 'subdued by the spear'.

νύξ, gen. *νυκ-τ-ός*, 'night', see p. 390 above.

δεκάς, *πεμπάς* *πεντάς*, see p. 390 above. So also *ἐπτάς* 'a group of seven' ground-form **septm-t-*, *ἐννέα* 'a group of nine',

δυνάς τριάς (this word cannot be compared with Lat. *triēns*, gen. *trient-is*), ἕξας etc. In I § 238 p. 199, § 469, 7 p. 346 something has been said of the *-δ-* in these forms. In the Indo-Germanic case-system (*dekmt-* **septmt-* and so forth) there was a variation between *t* and *d*, e. g. dat. **dekmt-ai*, instr. **dekmd-bhi(s)*. The only question is whether the Gr. *-δ-* arose from an assimilation of the cases with *t* to this latter form either in Greek or earlier, or whether the *δ* was a special Greek development, due to the terminations *-ας -ασι*, which also belonged to the original *d*-stems (§ 128). The latter explanation now seems to me the more probable. Cp. *λάταγ-* § 130 Rem.

ἀργεῖτ- and ἀργῆτ- 'gleaming' the nom. was perhaps originally *-ēt*, gen. *-et-os* and so forth (cp. below A.S. *hæle* 'hero' for pr. Germ. **chalēp*). κέλης, gen. *-ητ-ος*, m. 'runner, courser', ἔχης m. 'possessor', λέβητ m. 'cauldron, bowl'.

Italic. Lat. *com-es*, *anti-stes*, *nepōs* (gen. *nepōt-is* etc.; the weak form of the stem appears in *nept-i-s*), see p. 390 above. *sacerdōs*, gen. *-dōt-is*, for **sacro-dō-t-* I § 633 p. 473 f.; where it must be remembered that *-dō-t-* can be derived not only from $\sqrt{dō-}$, but also from $\sqrt{dhē}$ (cp. Gr. *θω-μός* etc. I § 315 p. 254). *locu-plēs*, gen. *-plē-t-is*, whose original meaning has not been clearly determined (see Corssen, Krit. Nachtr. 253). *man-suēs*, gen. *-suē-t-is* (beside *mān-suē-tu-s*). Add *in-gen-t-*, if it originally meant 'unknown, unheard of', and then 'extraordinary, huge', and so comes from $\sqrt{gen-}$ 'know' (Danielsson, Pauli's Altital. Stud. IV 149 f.).

Lat. *nox*, see above p. 390.

With *-et-*: *teges* (gen. *teget-is*) f., *seges* f., *merges* f.; *teres*, *hebes*. An isolated form is *caput*, gen. *capit-is*.

Remark 1. With *-it-*: *eques* (gen. *equit-is*) m. (*equo-s*), *pedes* m. (*pēs*), *vēles* m. (*vēlu-m*), *mīles* m., *circes* m. (*circu-s*), *palmes* m. (*palma*), *āles* subst. m. and adj. (*āla*). K. Walter (Kuhn's Ztschr. X 194 ff.) holds that these correspond to such Greek denominatives as *ἵππo-τα* (*eques*) *ἀγρο-της* (§ 80 p. 240). There seems to me to have been a confusion in Latin between *tā*-stems and compounds with *-i-t-* 'going' (see *com-i-t* above), after the vowels preceding the *-t-* had become indistinguishable through phonetic change. The compounds attracted the *tā*-stems into their

own consonantal declension, a process which was assisted by popular etymology. But it is doubtful whether all these forms (*equēs* etc.) were *īā*-stems to start with. It may certainly be assumed of a few examples, such as *ped-it-*, that (like *com-es*) they were real compounds of *-i-t-* 'going'.

Old Irish. *niae*, gen. *niath*, (Mid.Ir.) 'sister's son', *in-nocht* 'hac nocte', see p. 390 above.

With *-et-*: *cing-*, gen. *cinged*, 'hero, warrior' Gall. *Cinges-etis Cinget-o-rīx*, *traig* 'foot', *cin* 'debt', *luch* 'mouse'. Compare Gall. acc. pl. *Namnet-as*, and further (with *ā*) *Atrebāt-es* (beside O.Ir. *atreba* i. e. *ad-treba* 'possidet, habitat') as well as Ir. *ascad-* (nom. *ascae*) 'rival, enemy' *arad-* 'charioteer'; in these words it is difficult to determine the original form of the suffix.

Germanic. O.H.G. *nefo* 'nephew' for **nefō(ā)* has been attracted into the *n*-declension: Skr. *nāpāt* etc., see p. 390 above. O.H.G. *nift* 'neptis, privigna' = Skr. *napt-ī*.

Gen. sing. Goth. *nah-t-s* O.H.G. *naht-e-s*, dat. Goth. O.H.G. *nah-t* etc. (nom. Goth. *naht-s* O.H.G. *naht* 'night'): Skr. *nāk-t-* etc., see above p. 390. In Germanic the various cases of this word followed different declensions.

Remark 2. Consonantal cases are found in the declension of the feminine nouns Goth. *vath-t-s* 'thing' *brus-t-s* 'breast' as from *naht-s*; and also from *spaurp-s* (*spaur-d-*) 'race-course' *dulp-s* (*dul-p-*) 'feast'. The two latter should be compared with such Sanskrit fem. forms as *vṛt-stūt-* (see p. 391), if their consonantal inflexion is original.

There is a class of nouns which show a vowel before the *-t-* (pr. Germ. *-p-* or *-ā-*, following always the position of the accent), which have abandoned their old consonantal inflexion more or less completely. Goth. *mitap-s* (st. *mitad-*) f. 'measure', beside O.Sax. *metod* O.Icel. *mjqtuð-r* m. 'measurer, orderer, artist, creator'. O.H.G. *helid* A.S. *hæleð* (also *hæle*, an old nom. without *s*, for **çalēp*) O.Icel. *hǫld-r* 'hero'. O.H.G. *hehhit* 'pike', *sceffid* 'creator', *leitid* 'leader'. In Norse this class (*nomina agentis*) was fertile: e. g. *hatu-ðr* *hǫtuð-r* 'hater', *skapaðr* 'creator' *framið-r* 'gestor, tributor, dator'.

Goth. *mēnōp-s* (dat. *mēnōp*, pl. nom. acc. *mēnoþ-s*) O.H.G. *mānōd* O.Icel. *mānað-r* (pl. *mānað-r* m. 'month'. The nominative form **mēnō(p)* gave rise to Goth. *mēna* O.H.G. *māno*, which

then developed *n*-cases like *nefo*. In this word *-t-* was a secondary suffix, and so also in Goth. *veitvōþ-s* (*veitvōd-*) m. 'witness'; this form will be discussed below in § 176.

Balto-Slavonic. The Lith. nom. sing. *mėnũ* (gen. *mėnesio*) may, with O.H.G. *māno*, be referred to **mēnōt*.

Lith. pl. *dėszimt-s* O.C.Sl. *deset-e*; see p. 390 above.

Remark 3. The Slav. masc. *lakŭŭ* 'elbow, ell', *nogŭŭ* 'unguis', *pěcaŭ* 'seal' form cases according to the consonantal declension; e. g. gen. pl. *lakŭŭ* nom. pl. *pěcat-e*. Have we here a secondary transference to this declension?

§ 124. The Suffixes *-tāt-* and *-tāt-* formed feminine abstract substantives from Adjectives and Substantives, and had in the proethnic and later periods the parallel forms *-tāti-* and *-tūti-*. They have been discussed in § 102 p. 308 ff.

§ 125. The Suffix *-nt-¹⁾*. In all periods this suffix formed all the active participles excepting that of the Perfect (§ 136). In most of the separate groups of languages it has remained in living use down to the present day.

nt- participles became simple nouns in all the languages, though more rarely in some than in others. They became partly adjectives pure und simple (with comparative and superlative), such as Mod.H.G. *reizend* 'charming' and partly substantives, such as Mod.H.G. *freund* 'friend'. This change from one part of speech to another has taken place at every stage in the development of the Indo-Germanic languages. Thus for example Mod.H.G. *zahn* (Lat. *dēns*) had become a substantive in the proethnic period, *freund* (Goth. *frijōnd-s*) in

1) H. Ebel, Das Suffix *-ant* und Verwandtes, Kuhn's Ztschr. IV 321 ff. M. Bréal, Origine du suffixe participial *ant*, Mém. de la Soc. de lingu. II 188 ff. F. Baudry, Le *t* du suffixe participial *ant*, ibid. 393 ff. O. Bechstein, De nominibus Latinis suffixorum *ent-* et *mino-* ope formatis, Curtius' Stud. VIII 335 sqq. (I have not been able to work through Ch. Bartholomae's essay, Die ar. Flexion der Adjectiva und Participia auf *-nt-*, which has just appeared in Kuhn's Ztschr. XXIX 487 ff., so as to make use of it for the following sections, but a cursory survey has shown me, to my great satisfaction, that we have arrived at the same conclusions on certain main points).

proethnic Germanic, *heiland* (A.S. *hælend*) in proethnic West-Germanic, and *der vorsitzende* (O.H.G. *furi-sizzando*) 'president' in High German. Compare § 144.

-nt- is sometimes added immediately to the root-syllable, e. g. **s-ŋt-* 'being' \checkmark *es-* (Skr. *s-ánt-* *s-at-*), sometimes to stems having a tense-determinant, e. g. pres. **qi-nŋ-ŋt-* \checkmark *qeŋ-* (Skr. *ci-nv-ánt-* *ci-nv-at-*), **rud-ó-nt-* \checkmark *reyd-* (Skr. *rud-á-nt-*), **bhéydh-o-nt-* \checkmark *bheydh-* (Skr. *bódh-a-nt-*), fut. **dō-sjó-nt-* \checkmark *dō-* (Skr. *dā-syánt-*).

Remark 1. It is a plausible hypothesis that the 3. pl. in *-nti* and *-nt* (**rudó-nti* = Skr. *rudá-nti* **é rudó-nt* = Skr. *d-rudan*, cp. Lat. *rudu-nt*) is simply the bare stem of this participial formation, to which *-i* was sometimes added on the analogy of the 3. sing. in *-ti* beside *-t* etc. If so, the 3. pl. perf. (Gr. *τελόγγ-ασαι* *-αι*, Goth. *vit-un*) was doubtless formed originally with some other suffix; and as a matter of fact the *nt-* suffix is not used in that tense in Aryan.

The original variation of ablaut is on the whole clear:

In participles formed from non-thematic verbal stems, the suffix varied between *-ŋt-* and *-nt-* in the parent language; as Skr. sing. acc. *s-ánt-am* *ci-nv-ánt-am* gen. *s-at-ás* *ci-nv-at-ás* pl. loc. *s-át-su* *ci-nv-át-su* (instead of **s-at-sú* **ci-nv-at-sú*), cp. I § 226 p. 193, § 230 p. 196 etc.

With thematic stems, on the other hand, the suffix assumed the forms *-ó-nt-* and *-ŋt-*; as Skr. *rudá-nt-am* *rudat-ás* *rudat-su* (instead of **rudat-sú*) Gr. *ῥιδόντ-α* **ῥιδατ-ός* **ῥιδατ-αι* (replaced by *ῥιδόντος* and *ῥιδόντου ῥιδοῦσαι*). It is certain that *-ó-nt-* and *-ŋt-* were original; but it is still a little doubtful whether the paradigm also contained *-e-nt-*. The nom. sing. ended partly in *-o-nt-s* (and under certain conditions perhaps in *-e-nt-s*), partly in *-ōn* (Gr. *ῥιδών* O.C.Sl. *bery*; there was no loss of *-t*, contrast *ῥιγών* for **ῥιγών-ντ* I § 611 p. 461).

Remark 2. Special evidence for a form *-e-nt-* beside *-o-nt-* and *-ŋt-* is given by Mid.H.G. *zint* O.Icel. *tind-r* 'tooth, prong' = **d-en-t-* beside **d-on-t-* (O.H.G. *zan*, Gr. *δόνν-ε* etc.) and **d-ŋt-* (Goth. *tunþ-*). It is possible to assume (with B. Kahle, *Zur Entw. der Conson. Decl.*, 13) that the loc. sing. was originally **dént(i)*, cp. loc. sing. *-en(-i)* *-men(-i)* § 113 p. 344 and *-(t)er-i* § 120 p. 379. Another view is also possible. **rud-é-nt-* may once have existed beside **bhéydh-o-nt-*, **d-é-nt-* beside **d-o-nt-* as *qe-iv-ε*: beside *ā-qe-ov-ε*; § 113 p. 343 f. and *πα-τέρ-ε* beside *πεδ-ρορ-ε*;

μητρο-πάτορες § 120 p. 378; while in the *-nt-* stems also in either case the loc. sing. may have had *-e-*, **dent-(i)*. This latter assumption would explain very simply the varying declension of these stems in the different languages. Observe especially that in this case there would be no necessity to suppose any levelling of different forms of the stem in participles like Lat. *rudēns rudentis* etc., inasmuch as *rudent-* would come as regularly from **rudént-* as from **rudḡt-*.

§ 126. Indo-Germanic. Participles. **bhér-o-nt-* **bher-ṇt-*, beside **bhér-e-ti* 'fert': Skr. *bhárant- bhárat-*, Gr. *φέρων (-ovr-)*, Lat. *ferēns (-ent-)*, Goth. *baírand-s (-and-)*, O.C.Sl. *bery (*-at-)*. **dorkéio-nt-*, from the causative **dorkéie-ti* 'causes to see', \surd *derk-*: Skr. *darśáyant-* 'causing to see' Goth. *ga-tarhjang-s* 'distinguishing'; Skr. *tyājáyant-* 'bidding one abandon something' Gr. *σοβέων* 'driving away quickly, scaring off'; Skr. *nāśáyant-* 'causing to disappear, destroying' Lat. *nocēns* from **nocei-ent-* (indic. *noceō*). **rud-ó-nt-*,¹⁾ **rud-ṇt-* from **rud-é-ti* 'laments, howls': Skr. *rudánt- rudat-* Lat. *rudēns (-ent-)*; Skr. *vidánt-* 'finding' Gr. *ιδών* 'seeing' Goth. *vitand-s* 'knowing'; Skr. *giránt-* O.C.Sl. *žiry* 'swallowing' common ground-form* *grr-ó-nt-*, \surd *ger-*; Skr. *kṛntánt-* 'cutting off' Lith. *krintās (-ant-)* 'falling off'. **dō-siō-nt-*, from **dō-siē-ti* fut. 'he will give': Skr. *dāsyánt-* Lith. *dū'ses (-ent-)*. **uē-nt-* (the stem doubtless had this form in all the cases; for Aryan *vāt-* in the weak cases see § 110 p. 337), from **uē-ti* 'blows' (without vowel-gradation): Skr. *vā-nt-*, Gr. *ἄεις ἄ(F)εῖν* for **ἄ(F)ηῖν*; add Lat. *vent-u-s* Goth. *vind-s* 'wind', which have been extended by *-o-*. **sthā-nt-* **stānt-*, from **stā-t(i)* (Lat. *sta-t*, Skr. *á-sthā-t* Gr. *ἔ-στη*): Skr. *stā-nt-*, Gr. *στάς (σταῖν-)* may regularly represent either form of the stem), Lat. *stāns (stant-*, as in Greek); **dō-nt-* **dā-nt-*, from *dō-t(i)* (Lat. *da-t* instead of **dō-t*, Skr. *á-da-t*): Gr. *δούς (δovv-* for **δω-vr-* or instead of **δα-vr-*, see I § 109 p. 102), Lat. *dāns (da-nt- = *dā-nt-)*. In the following examples the tense-stem ends in a consonant. **s-ṇt-* **s-ṇt-*, beside **és-ti* 'is': Skr. *s-ánt-* *s-at*; in Greek the only trace of the orig. stem is **s-ṇt-* in the fem. Dor. *ἔασσα* i. e. **ἔ(σ)-αρ-χα* § 110 p. 337

1) Or **rud-é-nt-*, under other (more primitive) conditions, see § 125 Rem. 2. So also in the cases which follow.

(elsewhere we find new formations, such as Dor. *ἐντ-ες* Ion. *ἐόντ-ες* Att. *ὄντ-ες*), Lat. *prae-sens* (*-sent-*), Pruss. *emprīki-sins* 'present' (dat. *-sentismu*). **dē-d-nt- *dhé-dh-nt-* (*-nt-* no doubt in all the cases), from **dē-dō-ti* 'gives', $\sqrt{dō-}$, **dhé-dhē-ti* 'ponit', $\sqrt{dhē-}$: Skr. *dādat- dādhat-* (acc. *dādat-am dādhat-am*), Gr. *διδόντ- τιθέντ-* new formations in place of **δίδατ- *τίθατ-* (J. Schmidt, Kuhn's Ztschr. XXVII 394 f.). **qi-nu-nt- *qi-nu-nt-*, from **qi-néu-ti- $\sqrt{qeḷ-}$* : Skr. *cinv-ánt- cinv-at-* 'gathering, arranging', *śak-nuv-ánt-* 'being able'; in Greek we have a reformation *ἀγ-ρύ-ντ-* 'breaking' taking the place of **ἀγ-νυ-αντ-¹*) **ἀγ-νυ-αντ-* which would correspond to the 3. pl. *ἀγ-ρύ-αντι*. **mṛ-n-nt- *mṛ-n-nt-*, from **mṛ-nā-ti*, $\sqrt{mer-}$: Skr. *mṛ-ṇ-ánt- mṛ-ṇ-at-* 'grinding'; Gr. *δαμ-ν-άντ-* (nom. *δαμνάς*) 'taming', where this strong form of the stem is carried through the paradigm.

A number of participles of this kind became simple nouns even in the parent language. Skr. *jāra-nt-* 'frail, old,

1) In this section, as in Vol. I § 235 p. 198 f., I have regarded *-av-* as the regular phonetic representative of original *-ṇ-*. This view has been recently attacked by Kōgel in the Literar. Centralbl. 1888 Sp. 1380, in his criticism of Burghauser, who maintained (as I do) that *ἰδοι* (for **ἰ(ῃ)αντι*) was the normal form of the 3. pl. of the root *es-*; the comparison Skr. *sānti* = Gr. *εἰσι* (for **σεντι*) = H.G. *sind* 'is', says our critic, 'almost universally (??) accepted'. In view of this, I am bound to call attention to the evidence of the word *π-άντ-* = Idg. **kṷ-ṇt-* which is shortly to be mentioned in the text; a form which is of especial importance from its isolation, and which in my opinion decides the question of the representation of Idg. *ṇ* in Greek distinctly in favour of *av*. Can any one maintain the alternative that in the proethnic period of Greek **π-άντ-* became *π-άντ-* through the influence of the weak form **π-αντ-* = **kṷ-nt-*? This form disappeared in that very period, and in other instances of levelling between different cases it is the reverse process and that only that has been established — e. g. *-fer-* for *-far-* on the analogy of *-fer-*, *φε-ε-σι* for *φε-α-σι* on the analogy of *φεεν-*. Nor are the objections urged by Meringer (Ztschr. f. österr. Gymn. 1888 p. 149 f.) against my theory at all more serious. I hope to find an opportunity elsewhere of dealing with his arguments in detail; suffice it here to say, that in maintaining as he does (p. 150) that the *e* of the Indo-Germanic sound 'n, which he and J. Schmidt assume in place of *ṇ*, 'naturally' became *a* in Aryan, he has completely overlooked the fact that before this 'n the Aryan *k*-sounds would necessarily appear as *c*-sounds, which no more happens here than it does before *ir* = Idg. *ṛr*.

hoary', Gr. γέρον (-ο-ντ-) 'old man'. Skr. śá-śvant- śá-śvat- 'complete, whole, every' for *śá-śvant- (I § 557 p. 413), Gr. πάντ- (πᾶς) ᾗ-παντ- (ᾗ-πᾶς) 'all, every', Idg. *k₁-h₁t- *k₁-h₁t- originally perhaps 'coming to fulness', compare Skr. śva- 'swell out' Gr. κνέω 'am pregnant' κύος 'fetus' (to the same root belongs Dor. πᾶ-μα § 117 p. 370 f.); cp. Goth. *all-s* § 66 p. 147 and Lat. *omni-s* § 95 p. 286. Skr. bṛ-hánt- bṛ-hat- 'exalted, high, great' fem. bṛhat-ī, O.Ir. Brigit f. (she who is exalted), see § 110 p. 337. *d-ó-nt- *d-ṛt- 'tooth' (cp. § 125 Rem. 2 p. 395 f.) from √ed- 'eat': Skr. dánt- dat- (dat-ás dad-bhīṣ), Gr. ὀδόντ- nom. ὀδούς and ὀδών; *dax- appears in ὀδάξ § 86 p. 256, § 88 p. 265, Lat. *dent-* nom. *dēns* (Osc. *dunt-* = *dont-* is uncertain, see Danielsson, Pauli's Altital. Stud. III 184), O.Ir. *dēt* (Mod.Cymr. *dant*) dat. *dēit*, Goth. *tunþ-u-s* O.H.G. *zan* (see p. 402 f.), Lith. *dant-i-s* (we still find gen. pl. *dant-ū* beside *dancziū*)¹; it seems more probable that Gr. Lesb. ἔδοντες was a re-formation, the original word being altered on the analogy of ἔδω, than that a by-form *éd-o-n-t- 'tooth' should have existed side by side with *d-ón-t- in Indo-Germanic; the ó- of ὀδούς however has yet to be explained; the theory of J. Schmidt (Kuhn's Ztschr. XXV 51) and G. Meyer, (Gr. Gr.² p. 306) does not satisfy me.

Aryan. Skr. vāh-a-nt- Avest. vaz-a-nt- (nom. vāhan vazas) 'vehens': Lat. *vehēns*, Goth. *ga-vigand-s*, Lith. *vežās* O.C.Sl. *vezy*, common ground-form **uegh-o-nt-*, beside indic. **uegh-e-ti* 'vehit'. Skr. dhārāya-nt- Avest. dārāya-nt- 'holding', beside indic. *dha-rāya-ti* *dārayeiti*; Skr. vāhāya-nt- 'causing to ride, causing to run': Gr. ὀχέων 'causing to drive, ride', Goth. *vagjand-s* 'setting in motion'. Skr. nās-ya-nt- Avest. nas-ya-nt- 'becoming lost', beside indic. *nās-ya-ti* *nas-yeiti*. Skr. prchá-nt- Avest. per'sa-nt- 'asking': Lat. *poscēns* for **por(c)-scent-*, beside indic. *prchá-ti* *per'saiti* *poscit* ground-form **pr(k)-ské-ti*, √*prek-*. Skr. vindá-nt- Avest. vinda-nt- 'finding', beside indic. *vindá-ti* *vindaiti*, √*ueid-*.

1) I see no sufficient reason for doubting that in *dantū* we still have the old *-nt-*stem (Brückner, Archiv für slav. Phil. III 247). *grindū* beside *grindšiū* from *grindī-s* 'deal board', only shews that the word has been influenced by the analogy of such forms as *dantū*.

Skr. *udan-yá-nt-* 'streaming' beside indic. *udan-yá-ti*. Skr. *vak-šyá-nt-* Avest. *vax-šya-nt-* fut. 'about to speak', beside indic. *vak-šyá-ti vax-šyeiti*. Skr. *vā-nt-* Avest. *vā-nt-* 'blowing', beside indic. *vā-ti vāiti*: Gr. *ἄεις*, see above p. 396. Skr. *snā-nt-* 'washing oneself, bathing', beside indic. *snā-ti*: Lat. *nāns*. Skr. *s-ánt-* Avest. *h-ant-* 'being, true', beside indic. *ás-ti as-ti* 'is'. Skr. *y-ánt-* Avest. *y-ant-* 'going, coming', beside indic. *ē-ti aēiti*. Skr. *dād-at-* 'giving, *dādḥ-at-* ponens', Avest. *dađant-* 'giving, ponens', beside indic. Skr. *dāda-ti dādḥa-ti* Avest. *dađāiti*; the Avestic form was a new formation, see above, p. 397. Skr. *su-nv-ánt-* Avest. *hu-nv-ant-* 'pressing out', beside indic. *su-nō-ti hu-naoti*. Skr. *kṛi-ṇ-ánt-* 'buying', beside indic. *kṛi-ṇā-ti*.

In proethnic Aryan, participles like *vā-n-t-* 'blowing' lost their nasal in the weak cases on the analogy of *sánt-am*: *sat-ás* etc. Compare § 110 p. 337. Beside Skr. *mahat-* Av. *mazat-* (*mahat-ā mahād-bhiṣ*, *mazaḥ*) 'great' we have a remarkable form Skr. *mahánt-* Avest. *mazānt-* (*mahánt-am*, *mazānt-em*). Compare with it the Vedic acc. *mahā-m* and such compounds as *mahā-grāmá-s* 'great host'. *mahánt-* is doubtless a contamination of *mahan-* (*mahān-*) and *mahat-*; compare § 135.

On the whole Sanskrit has preserved faithfully the vowel-gradation of proethnic Aryan; e. g. sing. acc. *prchá-nt-am su-nv-ánt-am* instr. *prchat-ā su-nv-at-ā* pl. instr. *prchād-bhiṣ su-nv-ād-bhiṣ*. On the other hand, we find in Avestic the strong form of the stem constantly transferred to the weak cases, as gen. pl. *jasent-am* contrasted with Skr. *gácchat-ām*, dat. pl. *ber'zenbyō* contrasted with Skr. *bṛhád-bhyas*.

Participles used simply as nouns. Pre-Aryan: Skr. *járant-*, Skr. *śá-śvant-*, Skr. *bṛhánt-*, Avest. *ber'zant-* 'exalted, high, great', Skr. *dánt-* 'tooth' (Avest. *dant-an-* has the *-en-* which is so common in names of parts of the body, cp. § 114 p. 345 ff.); see above, p. 397 f. Aryan: Skr. *mahnt-* Avest. *mazānt-* 'great', see above, Skr. *pfśant-* 'spotted, dappled', *dhṛśánt-* 'courageous, bold', *ṛhánt-* 'small, little' (the opposite of *bṛhánt-*), Avest. *sao-šya-nt-* fut. part. 'who will help, saviour, preserver'.

Greek. Participles. *ῥέων* (*-o-vr-*) 'flowing', beside indic.

ῥέει ῥεῖ: Skr. *sráv-a-nt-*, √ *sreṣ*. φορέων 'bearing', from φορέω
 φορῶ: Skr. *bhārāya-nt-*, √ *bher-*. πέπων (-ο-ντ-) fut. 'about
 to cook', from πέψω, √ *peḡ-*. λιπών (-ο-ντ-) 'leaving', from
 ἔ-λιπ-ον: Skr. *ric-ā-nt-* √ *leiḡ-*. γνούς (-όντ-) 'learning' for
 *γνω-ντ- (I § 611 p. 461), from ἔ-γνω-ν; μιγείς (-έντ-) 'mixed
 with, united with' for *μιγη-ντ-, from ἐ-μίγη-ν. τεκταίνων 'making',
 from τεκταίνω for *τεκταν-ιω. τιμάων 'honouring', from τιμάω.
 δουλώων 'subjugating', from δουλόω. στᾶς (στάντ-) 'placing one-
 self, being in a position', beside ἔ-στη-ν; see p. 396 above. πᾶς
 (acc. π-άντ-α gen. π-αντ-ός) 'complete, all' for *κμ-ήτ-, see p. 398
 above; the indic. would perhaps be *ἔκμ-τι. πέψᾶς (-αντ-) part. aor.
 'cooking', beside ἔ-πεψ-α, instead of *πεπ-σ-άντ- *πιπ-σ-ατ- =
 *peḡ-s-ḡt- *peḡ-s-ḡt- or perhaps instead of the single form *πέπ-
 -σ-ατ- = *pég-s-ḡt- (which may have been regular in all the
 cases); the latter view is supported especially by Ved. nom. sing.
dhákṣat (*dah-* 'burn'). τι-θείς (-έντ-) 'placing' contrasted with
 Skr. *dádḥ-at-*; see above, p. 397. ἀγνός (-ύντ-) 'breaking' (trans.)
 contrasted with Skr. *śak-nuv-ánt-*; see above, p. 399. δαμ-ν-ᾶς
 (-άντ-) 'taming', see *ibid*.

In Greek only a few traces remain of the different forms
 due to the original vowel gradation. Beside φέροντ- a form
 *φέρατ- = Skr. *bhārat-* is implied in Heracl. loc. pl. προσσόν-
 τασσι and the like: such a form as *φερασσι for *φερατ-σι (Skr.
bhārat-su) would be altered to φερόντ-ασσι through the influence
 of φέροντ- in the other cases. Dor. ἔασσα (Cret. dat. ἰάττα) =
 Skr. *s-at-ī* has been already mentioned on p. 396. If we may
 trust a few corrupt glosses in Hesychius, a form φεκατ-, fem.
 ἁ-έκασσα once existed beside ἔκων ἐκόντ-ος 'willing'. See R. Kögel,
 Paul-Br. Beitr. VIII 116, J. Schmidt, Kuhn's Ztschr. XXV
 590 ff.

Remark 1. It is very questionable whether θέρμασσα 'furnace, stove'
 comes directly from the partic. θέρμων 'warming', as some maintain. It is
 important to notice that we have the parallel form θερμαίνω. Cp. πρό-φρασσα
 beside πρό-φρων.

Participles used simply as nouns. Pre-Greek: γέρων, πᾶς,
 ὁδούς, see p. 398. Greek: δράκων 'dragon' (δρακῶν part. aor.),

ἄρχων 'ruler', κρείων 'ruler' (εὐρυ-κρείων 'ruling over wide realms'), μέδων 'counsellor, lord' (εὐρυ-μέδων): Goth. *mitand-s* 'measuring', ὁρίζων 'the bounding line, horizon'; ἐκών 'willing', φαέθων 'shining, bright', μέλλων 'future'.

Italic. Participles. Lat. *sedēns* (*-ent-*), Umbr. *zeřef serse* 'sedens'. Lat. *prae-sēns*, Osc. *praesentid* 'praesente'. Lat. *dūcēns*: Goth. *tiuh-a-nd-s* 'drawing', √ *deyh-*. *agēns*: Skr. *āj-a-nt-* Gr. ἄγων, √ *ag-* 'agere'. *monēns* for **monejēnt-*, beside *moneō* (I § 134 p. 121): Skr. *mānāyant-* 'honouring', √ *men-* 'remember, think'. *cōn-spiciēns*: Skr. *paś-ya-nt-* 'seeing', √ *spek-*. *rudēns*: Skr. *rud-ā-nt-* 'lamenting', √ *reyd-*. *vorreēns* (*verreēns*): O.C.Sl. *vrěchy* 'threshing', √ *uers-*. *rumpēns*: Skr. *lumpā-nt-* 'breaking'. *im-plēns*, beside *im-ple-t* (*plē-*). *flāns*, beside *fla-t* (*fla-*). *albēns*, beside *albe-t*. *plantāns*, beside *planta-t*. *stāns*, *dāns*, see p. 396 above. *mi-nu-ēns* *ster-nu-ēns* may represent immediately the original forms in *-ny-ūt-* *-nu-ūt-*; and similarly *li-nēns* *ster-nēns* (*li-n-ent-* *ster-n-ent-*), may be directly compared with Skr. *mr-ṇ-ānt-* Gr. *δαμ-ν-άντ-*; see above, p. 397.

Few traces can be found of vowel gradation in the stem. If the form *-e-nt-* did not ever occur beside *-o-nt-* *-ūt-* in the original paradigm of the participles from thematic stems (see § 125 Rem. 2 p. 395 f.), then in all the examples of participles of this class in Latin, *-ent-* must be due to an assimilation of all the cases to those with Idg. *-ūt-* (e. g. gen. *rudent-is* = Skr. *rudat-ās*). The grade *-o-nt-* is still seen in *eunt-is* etc. beside *iēns*, *flexu-nt-ēs* beside *flexentēs*, Roman knights on active service, *voluntās* for **volont-i-tās* beside *volēns*, and other examples; see Bēchstein in Curtius' Stud. VIII 344. 348. 352; the forms *ferundu-s* *faciundu-s* also are indirect evidence for *-o-nt-* in the partic.; see § 69 p. 162. In the participles from non-thematic stems, such as *prae-s-ent-*, *-ent-* regularly represents both *-ūt-* and *-ūt-* (I § 240 p. 200); and this form, which appeared in all the cases, may have helped to establish *-ent-* in the former class to the exclusion of *-o-nt-*.

The purely nominal use of the suffix is here more common than in Aryan and Greek. Pre-Italic: Lat. *dēns*, see p. 398.

Lat. *prae-sēns*, Osc. *prae-sentid*. Lat. *serpēns*, *parēns*, *ad-ulēscēns*, *cliēns*, *oriēns* (sc. *sōl*); *ē-loquēns*, *con-gruēns*, *in-nocēns*, *sapiēns*, *abundāns*, *in-tolerāns*. In its adjectival function the participial suffix was fertile even beyond its original sphere; thus such forms as *bene-volenter -volentior -volentissimu-s* which were attached to *bene-volu-s* etc., produced *māgni-ficenter -ficentior -ficentissimu-s* (from *-ficu-s*).

In Old Irish it is only used as a purely nominal suffix. *Brigit* f. = Skr. *bṛhat-ī* and *dēt* 'tooth', see above p. 398. *lōche*, gen. *lōchet*, 'flash', *√leuk-*. *brāge* 'neck'. *care cara*, gen. *carat*, 'friend', Gall. *Carant-onus Carant-illus*. *tē*, pl. *tēt*, 'hot' for **tepent-* (I § 339 p. 269).

Germanic. Goth. *kius-a-nd-s* O.H.G. *chios-a-nt-i* 'trying, choosing': Skr. *jōṣ-a-nt-* 'being fond of', *√ḡeys-*. Goth. *us-vakja-nd-s* 'awakening' O.H.G. *wecche-nt-i* 'wakening': Skr. *vājāya-nt-* 'urging, driving on', *√*ueḡ-* 'move, be strong'; Goth. *fra-vardja-nd-s* O.H.G. *far-wertte-nt-i* 'causing to disappear, destroying': Skr. *vartāya-nt-* 'causing to turn, or run a course', *√uert-*. Goth. *nasja-nd-s* O.H.G. *nerie-nt-i* 'saving', *√nes-*. O.H.G. *feh-ta-nt-i* 'fighting': Lat. *pec-tēns*. Goth. *vit-a-nd-s* O.H.G. *wizz-a-nt-i* 'knowing': Skr. *vid-ā-nt-* 'finding', Gr. *id-ō-vr-* 'seeing', *√ueḡd-*. Goth. *ga-daürs-a-nd-s* 'venturing': Skr. *dhṛṣ-ā-nt-* 'courageous'. Goth. *salbō-nd-s* O.H.G. *salbō-nt-i* 'anointing', beside indic. Goth. *salbō-þ* O.H.G. *salbō-t*.

The original vowel-gradation has disappeared. But an example of original *-nt-* survives in Goth. *hulund-i* 'cave, hole' § 110 p. 337.

The participles in actual use were declined in Gothic as weak *n*-stems; except that in the nom. sing. we have *-nds* i. e. **-nd-a-z* besides the usual form from *n*-stems: thus, nom. *kiusa-nds* and *-nda*, gen. *-ndins* and so forth. In Old High German this participle was an *-io*-stem; *-nti* is the so-called uninflected form. Parallel to it is the inflected form: 'strong' *-ntēr*, 'weak' *-nto*. See the sections on the cases.

Participles becoming Substantives:

Pre-Germanic. Goth. *tunþ-u-s* O.H.G. *zan* 'tooth', see

above p. 398. This variation arose from the original doublet, pr. Germ. **tānp-* = **d-ó-nt-* and **tund-* = **d-nt-*. Such cases as acc. sing. Goth. *tunþ-u* (instead of **tanþ-u* = **dónt-η*) gave rise to the *u*-inflexion; see Kahle as already quoted, 12 ff.

Examples common to all branches of Germanic are: Goth. *frijōnd-s* O.H.G. *friunt* 'friend' ('who loves'), Goth. *fiþjand-s* O.H.G. *fiant* 'enemy' ('who hates'), no doubt also Goth. *all-waldand-s* O.Sax. *alo-waldand* 'All-ruler, Almighty' O.H.G. *waltant* 'ruler, director', and a few similar words. Other examples are found only in single dialects or groups of dialects, as Goth. *giband-s* 'giver', *mērjand-s* 'proclaimer', O.H.G. *wigant* A.S. *wīgend* 'fighter', O.H.G. *helfant* 'helper'. These participles, which became substantives only in Germanic, still show an unextended *nt*-inflexion, though it is nowhere found in all the cases: e. g. nom. pl. Goth. *frijōnd-s* O.H.G. *friunt* O.Icel. *frēnd-r* = **-nt-es* (Gr. *-ντ-ες*), loc. (dat.) sg. Goth. *frijōnd* O.H.G. *friunt* = **-nt-i-* (Gr. *-ντ-ι*); whereas other cases in Gothic and West-Germanic follow the *o*-declension, as nom. sing. Goth. *frijōnd-s* O.H.G. *friunt* (thus in O.H.G. we have nom. pl. *friunta* as well as *friunt*), and in Norse follow the *n*-declension, as nom. sing. *frēnde frēndi*.

A still younger stratum is formed by substantives like O.H.G. *waltanto* 'he who rules', *furi-sizzando* 'architrictinus', *nerrendeo* 'preserver, saviour'. Their substantival use was based upon the *n*-inflexion, to which as participles they were transferred; compare Mod.H.G. *der reisende* and the like.

Balto-Slavonic. Lith. *vežās* O.C.Sl. *vezý* 'vehens': Skr. *váh-a-nt-* etc., see p. 398 above. Lith. *velkās* O.C.Sl. *vlěky* 'dragging, drawing': Gr. *ἐλκων*, *√(s)uelq-*. Lith. *pinās* 'plaiting' O.C.Sl. *pěny* 'stretching, hanging', ground-form **pyn-ó-nt-*, *√(s)pen-*. Lith. *mélžās* 'milking': Gr. *ἀμείλων* 'milking'; O.C.Sl. *mlūzy* 'milking': cp. Skr. *mṛj-á-nt-* 'wiping off, rubbing off'. Lith. *límpās* 'cleaving, clinging': Skr. *límpá-nt-* 'smearing', *√leip-*. Lith. *bú-sēs* O.C.Sl. *by-šę* fut. 'about to be' (*byšąšte-je* 'τὸ μέλλον', the only relic of the future participle in Slav.): Avest. *bū-šya-nt-*, common ground-form **bhū-siό-nt-*, *√bhe-*. Lith. *jėszkas* 'seek-

ing', beside indic. 1. pl. *jěszkō-me*, for **jěszkō-nt-* (I § 615 p. 465): O.H.G. *eiscōnt-i* 'inquiring, asking' Lith. *turīs* (*turint-*) 'having', beside indic. 1. sing. *turiū* 1. pl. *tūri-me*. O.C.Sl. *chvalę* (gen. *chvalęšta*) 'praising', beside indic. 1. sing. *chvaljā* 1. pl. *chvali-mŭ*.

The old vowel-gradation has disappeared. Participles belonging to non-thematic vowel stems followed the analogy of stems in *-o-nt-*, e. g. Lith. *ėsq̄s* and *ėsq̄s* O.C.Sl. *sy* 'being', beside indic. *ēs-ti jes-tŭ*. In Prussian however there is a form *-sins* = Idg. **s-ŷt-* or **s-ŷt-* (p. 396 f.).

Remark 2. I cannot believe that Lith. *dañgujėsis* 'heavenly' = *danguje* loc. + *sis* 'being' (J. Schmidt, Kuhn's Ztschr. XXVII 393). Nor can I believe that O.C.Sl. *dadę* beside *dady* 'dans' represents another non-thematic form corresponding to the 3. pl. *dad-ęŭ* (= Skr. *dād-ati*); as to *dadę* and other forms in *-ę* beside *-y* see O. Wiedemann, Beitr. zur altbulg. Conjug. 128 f., Leskien Handb². p. 76 f.

In Baltic and Slavonic most of the cases of the *-nt-* participles were attracted into the *io*-declension owing to the suffix of the feminine; e. g. gen. Lith. *vėžanczio* O.C.Sl. *vezašta*. The acc. sing. Lith. *vėžant-į* still belongs to the unaltered consonantal inflexion.

Lith. *dant-į-s* 'tooth': Skr. *dánt-* etc., see p. 398 above. Pruss. *dilant-s* 'worker'.

§ 127. The Suffix *-uent-*¹⁾. This Suffix appears in Aryan, Greek and Italic in denominative adjectives; it usually denotes the possession of something, more rarely a resemblance to something.

In the strong cases *-uent-* = Skr. *-vant-* Gr. *-φερ-*, and in the weak cases *-uŷt-* = Skr. *-vat-* Gr. **-far-*. The latter was displaced by *-φερ-* (loc. pl. *χαρίεαι* = **χαρι-φερ-αι*, fem. *χαρίεσσα* = **χαρι-φερ-ια*), *ε* being taken from the cases which had *-(f)εvr-*. Lat. *-ōnsu-s -ōsu-s* for *-o-uŷt- + to-*, a derivative form which also appears in Avestic, see § 79 p. 231 f.

1) See Ebel's (and Bartholomae's) essays mentioned on p. 394 footnote. A. Goebel, De epithetis Homericis in *ei*, desinentibus, Wien 1858, Schuster, Die homerischen Adjectiva auf *-εις*, Ztschr. für österr. Gymn. 1859 § 16 ff. O. Schönwerth and C. Weyman, Über die lateinischen Adjectiva auf *osus*, Archiv für lat. Lexicogr. V 192 ff.

In the proethnic language this suffix seems to have been displaced by *-ues-* *-uos-* in a certain number of the cases. We have evidence of this in the proethnic Aryan nom. sing. masc. in **-uās* (Avest. *-vā*, altered in Skr. to *-vās* *-vān*, see § 136 Rem. 2), voc. sing. masc. in **-uas* (Skr. *-vas*, Avest. *-vō*) and the Greek **rā-Foç* Hom. *ῥῥος* compared with Skr. *tā-vant-* (see Rem. 1). Observe the similar phenomena in the Aryan *-mant-* stems (Whitney, Skr. Gr. § 1235): nom. sing. Skr. *-mās* *-mān* Avest. *-mā*, voc. Skr. *-mas* (Avest. **-mō*), and notice the Homeric forms *ῥῥ-μoç* and *ῥῥ-μoç* (Dor. *rāμoç* *āμoç*) (which are probably to be compared with the Aryan stems in *-mant-*), beside which we have *rā-μoν* in Thessalian; Solmsen (Kuhn's Ztschr. XXIX 77) and Kozlovskij (Archiv f. slav. Phil. X 657 f.) are no doubt right in comparing O.C.Sl. *ta-mo* 'thither' *ja-mo* 'whither'.

Idg. Skr. *āpa-vant-* 'watery', Gr. *όνό-εις* 'rich in sap'. Skr. *viṣā-vant-* 'poisonous, poisoned', Lat. *virōsu-s*. Gr. *δολό-εις* 'crafty': Lat. *dolōsu-s*. Gr. *οινό-εις* 'made of or with wine', Lat. *vinōsu-s* 'full of wine' or 'like wine' (*sapor, odor*).

Remark 1. Further examples of the meaning 'like something' are *aestuōsu-s* *cadāverōsu-s* *mōnstruōsu-s* etc. (Archiv für lat. Lexikogr. V 216 ff.); examples from Aryan are Skr. *vṣṣāṇ-vant-* 'like a *vṣṣāṇ-*', *īndrasvant-* 'like Indra' (the *s* is due to the analogy of stems in *-as-*), Avest. *draṣṣāka-vant-* 'like a small flag, fluttering, undulating' (K. Geldner, Kuhn's Ztschr. XXV 401). This meaning is specially frequent in the Sanskrit adverbs in *-vāt* (acc. neut.), such as *angiras-vāt* 'like angiras' *pūrva-vāt* 'after the ancient fashion, as of yore', and in the adjectives formed from pronouns such as Skr. *tvā-vant-* Avest. *ḥvā-vant-* 'who is of thy nature, like thee', Skr. *tā-vant-* *zīdā-vant-* Avest. *aṭta-vant-* 'tantus' Skr. *yā-vant-* Avest. *ya-vant-* 'quantus', from which we cannot separate Hom. *ῥῥος* *ῥος* Dor. *ā*; for pr. Gr. **rā-Foç* **ā-Foç*.

Aryan. The accent in Sanskrit falls sometimes on the suffix, but oftener on the word to which it is added. Skr. *āma-vant-* Avest. *ama-vant-* 'acting with violence, constraining with force, strong', from Skr. *āma-* Avest. *ama-* m. 'violence, strength'. Skr. *putrā-vant-* Avest. *puḥra-vant-* 'having a son or sons', from *putrā-* *puḥra-* m. 'son'. Skr. *vastra-vant-* 'having a beautiful garment' Avest. *vastra-vant-* 'provided with clothing', from *vāstra-m* *vastre-m* 'garment, vesture'. Skr. *agni-vānt-*, 'provided with fire',

from *agni-ṣ* 'fire'. Skr. *dhī-vant-* 'devout' from *dhī-ṣ* f. 'devotion', *udan-vánt-* 'rich in water' from *udán-* n. 'water', *bráhma-vant-* 'accompanied with prayer' from *bráhma-* n. 'prayer' (I § 229 p. 195), *ṇṣ-vánt-* 'rich in men' from *nár-* m. 'man', *marút-vant-* 'accompanied by the Maruts' (*marút-*), *pad-vánt-* 'having feet', from *pád-* m. 'foot', *támas-vant* 'dark' from *támas-* n. 'darkness', *nas-vánt-* 'with a nose' from *nás-* f. 'nose'. Avest. *gaoma-vant-* 'provided with flesh' from *gaoma-* m. 'flesh', *aši-vant-* 'holy' from *aši-ṣ* f. 'holiness', *astvant-* i. e. *astu-vant-* (cp. I § 159 p. 143) 'having a body, corporeal' from *astu-ṣ* m. 'body', *d*biṣ-vant-* 'hostile, hating' from **d*biṣ-* Skr. *dviṣ-* f. 'hate, enmity'. In Old Persian the suffix occurs in the feminine proper name *harau-vat-i-* = Avest. *haraxwait-i-* Skr. *sáras-vat-i* (*sáras-vant-* 'rich in water'); cp. I § 159 p. 143.

We have no certain explanation of the length of the final vowel of the contained stem in Skr. *áśvā-vant-* beside *áśva-vant-* 'possessing horses' from *áśva-*, *sutā-vant-* 'provided with pressed soma' from *sutá-*, *śákti-vant-* 'mighty' from *śakti-*, *viśū-vánt-* 'which has or wears different sides, which is in the middle' from *viśu* and the like. Cp. *mā-vant-*, *yuṣmā-vant-*, *tā-vant-* in Rem. 1. p. 405 and *áśvā-magha-s* etc. § 22 p. 38, and also Gr. *-ώ-εις* *-ή-εις* in the Greek section.

This suffix was frequently added in Sanskrit to the passive participle in *-tá-* (§ 79 p. 225 f.), as *kṛtā-vant-* 'factum habens, having done'. In the course of the Vedic period this was developed into a perf. part. act., which is very common in classical Sanskrit, where it is almost always used as a predicate; e. g. *mā na kaścīd dṛṣṭavān* 'no one has seen me'.

Greek. The *f* of *-fivr-* appears e. g. in Coreyr. inscr. *στονόςεσαν* = Homer. *στονόεσαν*. *ἀμπελό-εις* 'rich in vines' from *ἀμπελο-ς*. *τιμή-εις* 'treasured, honoured' (Pamphyl. inscr. *τιμά-εσα*) from *τιμή*. *χαρί-εις* 'graceful' from *χάρι-ς* acc. *χάρι-ν*. *ύγι-εις* 'having growth, blooming' (cp. Osthoff, Morph. Unt. IV 180 ff.). Hom. *ἐύρωεις* no doubt meaning 'mouldy, musty' from *ἐύρώς* (post-Homerie gen. *ἐύρω-τος* etc.) 'mould'. *τελέεις* beside *τελήεις* (see below) 'having fulfilment, fulfilling itself', no doubt

for **τελεσ-φεντ-*, from *τέλος* n. *κεράεις* 'horned' (late) from *κέρας*. *-οεις*, proper to the derivatives from *ο*-stems, became an independent suffix: *μητι-όεις* 'rich in wisdom' from *μητι-ς*, *ιχθυ-όεις* 'full of fish' from *ιχθυ-ς*, *ἡερ-όεις* 'cloudy' from *ἡήρ*, *νιφ-όεις* 'snowy' from acc. *νίφ-α*, *κλωμακ-όεις* 'rocky' from *κλωμάξ*, *θυόεις* from *θύος* n.; this is found even where the word is derived from an *α*-stem: *σκιόεις* 'shady' from *σκά*, *μηχανόεις* 'fertile in resource' from *μηχανή*. On the other hand from *ο*-stems we find *-ηεις* as well as *-οεις*: *μεσσήεις* 'moderate' from *μέσσο-ν*, *φρονήεις* 'bloody' from *φρονό-ς* 'bloody'. The same *-ηεις* occurs also in *θυήεις* beside *θυόεις*, *τελήεις* 'having fulfilment, fulfilling itself' beside *τελέεις*, *έλκήεις* 'full of wounds', from *έλκος* n., *έωπήεις* 'overgrown with underwood' from *έώψ*, etc. *-ώεις* is found in other words besides *εὐρώεις*; e. g. Hom. *κητώεις* 'full of hollows' (cp. *κητώδης* p. 409), *ώτώεις* 'eared' (*ώτ-*) and in late authors *πηλώεις* 'loamy, muddy' (*πηλό-ς*), *δενδρώεις* 'wooded' (*δένδρο-ν*).

Remark 2. It cannot be established that *φλειάσιο-ς* contains the *α* of the *-φατ-* (see p. 404) which we must assume as the weak form of the suffix (J. Schmidt, Kuhn's Ztschr. XXV 591). See Wackernagel *ibid.* XXVIII 130 f.

Italic. It is found only in the Latin compound suffix *-δνsu-s- δsu-s*, where the termination of forms containing *ο*-stems became regular in all words. The suffix of Avest. *ašavasta-* from *aša-vant-* is exactly parallel; see p. 404 above. *verbδsu-s* from *verbu-m*, *officiδsu-s* from *officiu-m*; *fāmδsu-s* from *fāma*, *silvδsu-s* from *silva*; *piscδsu-s* from *pisci-s*; *aestuδsu-s* from *aestū-s*; *crīmīnδsu-s* from *crīmen*; *nivδsu-s* from *nīx*, like Gr. *νιφ-όεις*.

VIII. The Suffix *-d-* (*-ad-*).

§ 128. In Sanskrit *-ad-* occurs a few times, in Greek *-ad-* and *-id-* are found more frequently, in Latin there are a certain number of examples of *-d-* with a preceding vowel, and in Germanic we have denominative verbs in *-at-jan*, which seem to correspond to the Greek verbs in *-αζειν* (*-ζ-* = *-δ-κ-*). Side by side with these forms in Greek, Italic, Germanic and Balto-

Slavonic we find other suffixes having *d* for their distinguishing consonant which appear to be connected with them (*-do-* may be related to *-d-* as *-to-* to *-t-*). Thus we may be justified in regarding this suffix as proethnic, although there are perhaps only two examples in which *-d-* appears in more than one branch of language: O.H.G. *gramizzōn* A.S. *gremettan*: Gr. *χρόμαδο-ς*, and O.H.G. *albig* O.Icel. *alpt*: O.C.Sl. *lebedŭ*.

Remark. We must not disregard the possibility that the *-d-* of this suffix may have come from *-t-* in the proethnic period, and that not only in the cases with *bh*-suffixes, such as Skr. *दृषद्-bhiṣ*. See I § 469, 7 p. 346, and cp. II § 130 Remark.

Aryan. There are only three certain instances, all in Sanskrit. *दृषद्-* f. 'rock, great stone, millstone', *bhasād-* f. 'back parts, pudenda muliebria', *śarād-* f. 'autumn'. Add *vanād-*, a doubtful word found in the Rig-Veda, meaning perhaps 'desire'.

Greek. Adjectives and (feminine) Substantives in *-ad-*: *φυγὰς* 'fleeing', *μηγὰς* 'mixed', *μαινὰς* 'raving', *μηκὰς* 'bleating', *τοκὰς* 'bearing, bringing forth', *νομὰς* 'pasturing', *γυμνὰς* 'naked, stripped for gymnastics, practised', *τεφρὰς* 'ash-coloured', *χοιρὰς* 'rising up, jutting out'; *νιφὰς* 'snow-flake', *σπιλὰς* 'reef', *ἰλλὰς* 'cord, rope', *χολὰδ-ες* 'entrails, intestines', *λαμπὰς* 'torch', *πηγὰς* 'rime, frozen earth', *γενειὰς* 'beard, hair of the beard', *πελειὰς* 'wild dove'. Stems ending in *-ιδ-* (fem.), the *ι* of which in many words certainly comes from the *ι*-stems: *ἔριδ-* (*ἔριδ-ος* etc.) 'strife' beside acc. *ἔρι-ν*, *κάλπιδ-* 'jug, vessel' (*κάλπιδ-ος* etc.) beside acc. *κάλπι-ν*, *ἱρι-ς* 'rainbow', *αὔλις* 'place for passing the night', *αἰγίς* 'stormcloud, shield of the gods', *ἀσπίς* 'shield', *γλυφίς* 'notch in the shaft of an arrow', *κερκίς* 'weaver's comb', *ἀκρίς* 'locust', *ἐπιγονίς* 'upper part of the thigh'. Connected with these *δ*-formations, and undoubtedly in great part derived from them, are a variety of elements of the nature of suffixes containing *-δ-*. Examples are *χρόμαδο-ς* (mentioned above), to which *κέλαδο-ς* 'noise, tumult' is parallel; *κόρυδο-ς* 'tufted lark', which in its formation comes very close to the cognate Germ. word **cherut-* 'stag' (Danielsson, Gramm. und etymol. Stud. I 31); patronymics like *Ἀκτορίδης* m. from

Ἀκτορίς f.; adjectives in *-ώδης* such as *κητώδης* 'like a sea-monster' (for the *ω* cp. *κητώεις*), which have been incorrectly classed with the adjectives in *-ειδής*¹⁾; and the numerous verbs in *-άζω* and *-ίζω* with a characteristic dental which were derived from these *δ*-nouns, such as *δικάζω*, *νομίζω*.

Italic. There are a few examples in *-id-*, no doubt with Idg. *i*: Lat. *capis* (*-id-is*) f., Umbr. *kapiře* 'capide', Osc. *καπιδιτωμ* i. e. *capid-i-to-m* 'ollarium'; Lat. *cassis* f., *cuspis* f., *lapis* m. Add *pecus* (*-ud-is*) f., *herēs* (*-ēd-is*) m. f., *mercēs* f., *palūs* (*-ūd-is*) f. Here too are found a variety of formative elements connected with this *d*-suffix: as in *or-dō -din-is* (beside *or-d-i-or*), cp. Gr. *μελεδών μελεδάλνω*, *capēdō frīgēdō rubēdō*, cp. Gr. *ἀχθρηδών*, *χαιρηδών*. The *-dō* of such adjectives as *imbridu-s lucidu-s* however cannot be classed here, if they were originally compounds with *dō* 'give' (as Skr. *jala-da-s* 'giving water' *artha-da-s* 'bringing benefit, generous') (Corssen, Krit. Beitr. 97 ff., Osthoff, Verb. in der Nominalcomp. 121 ff.; see also the evidence given by Thurneysen in his essay, Über die Herkunft und Bildung der lat. Verba auf *-io*, 1879, p. 13).

Old Irish. On account of the coincidence of *t* and *d* in unaccented syllables it is hard to say what Irish forms belong to this section. Yet it is clearly established that the adjectival suffix *-de* = **-dio-*, e. g. *conde* 'caninus' *talmande* 'terrestris', contains an original *-d-*, not *-t-*.

Germanic. The verbs in *-at-jan* should be first mentioned, as Goth. *lauhatjan* O.H.G. *lohazzen* 'to shine like lightning' *lougazzen* 'to burn like fire', Goth. *káupatjan* 'to box the ears, cuff' (pret. *káupasta*), *svōgatjan* 'to sigh', O.H.G. *blecchezzan* 'to flash', *roffezzen* 'eructare', *snepfezzen* 'to sob'. The following words may also be referred to old *d*-stems: O.H.G. *gremizzi* 'provoked' beside *gramizzōn gremizzōn*, *einazzi*, dat. pl. *einazzēm* 'singulativ'; O.H.G. *albiȝ* m. O.Icel. *álpt* f. 'swan' (the Icelandic

1) The complete similarity between the usage of *-ειδής* and *-ώδης* only shews that even in antiquity the two terminations had been connected by popular etymology. I reserve a fuller discussion for another opportunity.

word still keeps the consonantal declension, see Noreen, *Altn. Gramm.* I § 327. 328): O.C.Sl. *lebedŭ* 'swan', O.H.G. *hiruz* A.S. *heorot* 'stag' (cp. E. Brate, *Bezenb. Beitr.* XI 184 f.); Goth. *stiviti* n. 'patience', O.H.G. *fiscizzi* 'fishery, fishing' and several other similar forms (von Bahder, *Verbalabstr.* 111 ff.).

Balto-Slavonic. There are no examples with *-d-*, only *-do-* *-di-* and the like; and it must be remembered that Balto-Slavonic *d* may also be referred to Idg. *dh*. Lith. *pa-klōda-s* *pa-klōdē* 'cloth for spreading underneath' from *pa-klōti* 'to spread out', and other examples. O.C.Sl. *vraždā* 'enmity', *krivida* 'wrong', and other examples. *d* = pre-Balt.Slav. *d* seems to be certain only in *lebedŭ* 'swan' (see above).

IX. The Suffix *-k-* and *-q-*.

§ 129. In § 83—89 we assumed that a certain number of Greek, Italic, and Old Irish words in *-k-* had formerly been *-ko-* or *-qo-* stems, e. g. Gr. *ἀλώπηξ* (Skr. *lōpāśā-s*), *ὄρνυξ* (Skr. *vartaka-s*), *μεῖραξ* (Skr. *maryakā-s*) *νεᾶξ* (O.C.Sl. *novakŭ*), Lat. *senex* (Skr. *sanakā-s*), *vertex*, *fīlx*, *bībax*, O.Ir. *aire* (Skr. *āryaka-s*). In these cases it is sometimes certain and sometimes very probable that there has been an attraction from the *o*-declension to the consonantal; but we find in the same languages other similar stems in *-k-* which cannot be explained with any degree of probability as derived from an original *-ko-* or *-qo-*. For Greek and Italic the reader may be referred to Leo Meyer's *Vergl. Gramm.* II 409 ff., 508 ff. In Old Irish, examples of this kind are *nathir*, gen. *nathrach*, 'water-snake', *lāir* 'mare', *fal* 'hedge' (Zeuss-Ebel Gr. C. 805 ff., Wh. Stokes, *Bezenberger's Beitr.* XI 84 ff. 155). In Aryan there is only one doubtful relic of these forms: *vīpāś-* f. beside *vīpāśa-* f. name of a river, which is referred to *vēpatē* 'is in trembling, whirling motion'.

This being the case, it may be assumed that *-k-* *-q-* once existed as suffixes parallel to *-ko-* *-qo-*, bearing much the same relation to them as *-t-* to *-to-*. And further the transition of such classes of forms as *ἀλώπηξ*, *ὄρνυξ*, *senex*, *aire* to the con-

sonantal inflexion may have been aided by the influence of such original *k*-stems.

X. The Suffix *-g-* (and *-ġ-?*)

§ 130. We find suffixes in *-g* in Aryan and Greek; but not one of the words containing them appears in both simultaneously. Thus it is not safe to assume this suffix for the parent language.

Remark. We must not overlook the possibility that *-g-* may have come from *-k-* in the proethnic period, and that not only in the cases with *dh*-suffixes such as Skr. *uśtig-bhiṣ*. See I § 469, 7 p. 346. In the case of Gr. *λάταγ-* (*λάραξ*) 'drop, dregs': Lat. *latic-* (*latex*) it may be assumed that the Greek word originally had *k*, and passed over to the ordinary inflexion of *g*-stems simply through the influence of the form of the nom. sing. and of the loc. pl. (*-αξ -αῖς*) (cp. gen. *δερυγ-ος* § 86 p. 258 and gen. *δεράδ-ος* § 123 p. 392); and many other instances are doubtful for the same reason. Cp. § 128 Rem. p. 403.

Aryan. Skr. *sanāj-* 'old' (beside *sanaká-s*), *dhṛṣāj-* 'bold', *tṛṣṇāj-* 'thirsty' (beside *tṛṣṇā-* 'thirst'), *uśtj-* 'longing, desirous', *vanīj-* 'merchant', *bhurtj-* 'arm'. Forms like instr. pl. *uśtig-bhitṣ* point to *-j-* = Idg. *-g-*.

Greek. *ἄρπαξ*, gen. *ἄρπαι-ος* 'robbing, rapacious', whence *ἀρπάζω* (the *a* of Lat. *rapāc-* shews that it is quite a different word). *φάρυξ* (*-vy-*) 'throat, gullet'. *πτέρυξ* (*-vy-*) 'wing, pinion'. *μᾶστιξ* (*-ty-*) 'scourge, lash'. The parallel forms *-αγγ- vγγ- -ιγγ-* are more frequent; these may possibly have arisen from an original formation in which a nasal followed the *γ*-suffix (cp. I § 221 p. 188 ff.), e. g. *φάλαγξ* 'phalanx', *φάραγξ* 'steep rock, gorge', *λάρυγξ* 'larynx' (similarly *φάρυγξ* is found later for *φάρυξ*), *στόρυγξ* 'tooth, prong, point', *σάλπιγξ* 'trumpet', *σμιῶδιγξ* 'weal, swelling'.

XI. Suffixes in *-s*¹⁾.

§ 131. The Suffix *-es*⁻²⁾. The nouns formed with this suffix in the parent language were partly neuter substantives (generally

1) The Author, Zur Geschichte der Nominalsuffixe *-as-*, *-jas-* und *-vas-*, Kuhn's Ztschr. XXIV 1 ff. D'Arbois de Jubainville, Les thèmes celtiques en *s*, Mém. de la Soc. de lingu. II 327 ff.

2) Th. Aufrecht, Bildungen auf *nus*, *vos* *nas*, Kuhn's Ztschr. II 147 ff. A. Goebel, Das Suffix *es*; in seinem Verhältnisse zum Suffix

abstract), with which were associated adjectives like Skr. *yaśás-* 'glorious, majestic' Gr. *ψευδής* 'deceitful', and partly masculine or feminine substantives, e. g. nom. Skr. *uṣás* Gr. *ῥώς* 'dawn'. These two groups bear very much the same relation to one another as the group of neuter and the group of masculine and feminine *-men-*stems, e. g. Gr. *χεῖ-μι* : *χεῖ-μών* § 117 p. 365 ff.; we sometimes find *-es-*stems, as we found *-men-*stems, which seem to have had both forms of inflexion from the earliest times; e. g. Skr. *tápas-* n. 'warmth': Lat. *tepor* m., Lat. *tenus* n. Gr. *τέρος* n. 'bond': Lat. *tenor* m. At the time of the separation of the languages the neuter forms greatly preponderated. We may begin with these, and the vowel-gradation of the stems will be separately discussed under each of the two classes.

§ 132. 1. Neuter Substantives in *-es-* and the adjectives connected with them.

From the proethnic period onwards *-es-* is regular in all cases of the substantives except the nom. sing., which had *-os*, and in the adjectives also except in the nom. sing., whose ending in the masc. was *-ēs*, in the neut. *-es*. The vocalism of the root-syllable is almost without exception that of the strong grade (the *e*-grade in the *e*-series), and takes the accent in substantives, while in adjectives it falls on the formative suffix. E. g. Gr. *ψεῦδος* gen. *ψεύδους* etc. *μέρος* gen. *μέρους* etc. beside *ψευδής* *ψευδές* gen. *ψευδέος* etc. *δυσ-μενής* *-μενής* gen. *-μενέος* etc.

This double system of declension in the substantives and adjectives was no doubt developed out of a single one. The abstract substantive, denoting a quality, when it was used simply for the owner of that quality, formed a nom. sing. with the mark of masculine or feminine gender in the same way as nouns like Gr. *ποι-μήν πα-τήρ*; so also, with a similar indication of gender, an acc. sing. *-és-η*, nom. pl. *-és-es*; and the different accent connected with the new meaning caused a differentiation

ε; oder die Neutra in *ος*;, ibid. XI 53 ff. H. Ebel, Neutra auf *-as* im Altirischen, Kuhn-Schleicher's Beitr. VI 222 ff. Wh. Stokes, Irish neuter stems in *s*, Kuhn's Ztschr. XXVIII 291 ff. H. Ebel, Suffix *-as* im Gothischen, ibid. V 355 ff.

of accent in the other cases corresponding to the new function of the word. There is evidence however that amongst the cases of the neuter substantive there once were also forms with *-és-*; this is shewn by the datives like Skr. *dōhás-ē* 'to milk', which are used as infinitives. There must also have been cases where the suffix was simply *-s-* (the weak-grade form), namely, those in which the case-suffix bore the accent: compare Skr. *śīrṣ-ā-m* 'head' Gr. *κόρυς* 'temple, forehead' beside Skr. *śīras* 'head' (I § 306 p. 242), Skr. *ś-s-a-s ś-s-a-m* Gr. *ὤμος* for **ὤμ-σ-ο-ς* Goth. *am-s-a m.* 'shoulder' beside Lat. *um-er-u-s*, Skr. *vats-ás* 'year, calf' beside Gr. *ἔτος* n. 'year', Skr. *ḍṣa-dhī-* f. 'medicinal herb' for **ay-s-a-* beside *āvas* 'help, comfort', *man-dhātār-* 'thoughtful, devout person' for **manz-dhatar-* beside *mānas* 'thought', Lith. *tams-à* beside Skr. *tāmas* 'darkness', Lat. *farr-* for **fars-* beside Goth. *bariz-ein-s* 'of barley' (I § 571 p. 429) and many similar examples (The Author, Kuhn's *Ztschr.* XXIV 10 f., J. Schmidt, *ibid.* XXV 26, Danielsson, Pauli's *Altital. Stud.* III 192)¹). Finally we must observe the frequency of the instances in which the root-syllable shows the weak grade; e. g. Skr. *śīr-as* beside Lat. *cerebru-m* for **ceres-ro-m* Gr. *λίπος* 'fat' beside Skr. *rēpas* 'spot, stain', Gr. *πάθος* beside *πένθος*, Gr. *ἄγος* 'guilt' beside Skr. *āgas* 'sin', Goth. *ga-digis* 'structure, work' beside Gr. *τείχος* 'wall', Gr. *πύος* 'pus', Skr. *duv-ás-* 'eagerly striving' and the like (Osthoff, *Morph. Unt.* IV 182 f.). We may then reconstruct the paradigm of these neuters as follows: nom. acc. **kér-os* 'head', gen. *kṛ-s-és* (or *-ós*), dat. **kṛ-s-āi*, loc. **kṛr-és -és-i*; nom. acc. **ā-gos* 'sin, guilt' (Skr. *āgas*), gen. **aq-s-és* (or *-ós*), dat. **aq-s-āi*, loc. **ag-és -és-i* (cp. Gr. *ἄγος ἄγεος*). The dat. **-és-ai* (cp. Skr. inf. *bhiy-ás-ē jiv-ás-ē* etc.) was then formed on the model of the loc. *-és -és-i*. In most instances however, and even in the parent language, the nom. acc. (**kéros*) gave the type for the position of the accent and the form of the root in all the cases. With regard to the adjectives we must further observe that the accentuation of the

1) Cp. also Lat. *max-imu-s* beside Skr. *mahd-s* 'great' and Umbr. Osc. Celt. **neks-* in *nesimo- nessam* § 73 Rem. p. 179 f.

final syllable of the stem was original in compounds also: Gr. *ἀν-αγής* 'innocent, pure' *δυο-μενής* 'ill-disposed', Skr. *an-agās* 'sinless' (beside *án-agās*) *a-rēpās* 'spotless' *su-pivās* 'very fat' etc. Along with these there are other words which have the later accentuation, Gr. *οὐρανο-μήκης* 'heaven-high' *μεγα-κήτης* 'monstrously great' Skr. *su-mánās* 'well-disposed' *dur-vāsās* 'ill dressed', with other examples.

Indo-Germanic. **hléu-os*: Skr. *śráv-as* Gr. *κλέφος κλέος* 'fame, glory', O.C.Sl. *slovo* 'word'. **gén-os* 'race, family': Skr. *jánas* Gr. *γένος* Lat. *genus*. Gr. *στέγος τέγος* 'roof, house', O.Ir. *tech leg* 'house'. **séd-os* 'seat': Skr. *sádas* Gr. *ἔδος* O.Icel. *setr* (gen. *setrs*). **rég-os*: Skr. *rájas* 'darkness, dust', (Armen. *erek* 'evening') Gr. *ἔρεβος* Goth. *riqis* (gen. *riqizis*) 'darkness'. **nébh-os* 'clouds, atmosphere': Skr. *nábhas*, Gr. *νέφος*, Lith. *debes-i-s* (*d-* instead of *n-* is difficult to explain; perhaps it is due to the influence of *dangù-s* 'heaven', Holthausen in Paul-Braune's Beitr. XIII 590) O.C.Sl. *nebo*. **uéd-os*: Skr. *védas* 'knowledge', Gr. *εἶδος* 'form, idea'; add perhaps (with the weak form of the stem) **uits-*, *ῖσο-ς* Cret. *φίοφο-ς* 'like'; see § 64 p. 135. Gr. *ἄγ-ος* 'awe', Skr. *yaj-ás-* 'honouring', *√ iag-*. Skr. *ándh-as* 'plant', Gr. *ἄνθ-ος* 'bloom'. Skr. *dás-as* 'glorious deed' Gr. pl. *θήνεα* 'counsels, wiles', common ground-form **dáns-os*. Skr. *édh-as* 'wood for burning', Gr. *αἶθ-ος* 'brand'. Skr. *ó-j-as* 'strength' Gr. *ἐρι-ανγής* (late) 'very bright' and **úγής* 'strong, sound' in *ύγειά ύγεινό-ς* *Υγεινο-ς*, Lat. *augus-tu-s*. Skr. *áp-as* *áp-as* 'work, religious practice', Lat. *op-us*.

The dative and the locative of *nomina actionis* served also as infinitives, a usage which is doubtless proethnic. In Vedic infinitives in *-as-ē* the formative suffix usually bore the accent; this must be due to an early isolation of meaning. Skr. *jivás-ē* (dat.) 'to live' Lat. *vīver-e* (loc.).

In several languages *-es-* sometimes appears in close connexion with other formative elements, which precede it; as in Lat. *p̄t̄g-nus*. These formations existed in the parent language; indeed they were so well established that the compound suffix had the appearance of a primary formation (cp. Skr. *k̄t̄-t-ya-*

and the like, § 123 p. 391). Skr. *pī-v-as* Gr. *πί-(f)-ος* n. 'fat'. In the word **mē-n-os* n. (or nom. **mē-n-ōs* m., § 133) dat. **mē-n-s-ái* loc. **mē-n-ēs -ēs-i* from $\sqrt{mē}$ 'measure', the **mē-n-s-* form of the stem prevailed through all the cases, producing the masc. Gr. *μήν* gen. *μηρός* Lesb. *μηρν-ος*, Lat. *mēns-i-s* gen. pl. *mēns-um*, O.Ir. *mī* gen. *mis* 'month'; in Lithuanian **mē-n-es-* still survives in the gen. *mēnes-io* etc.¹⁾ The Aryan *mās-* and the Old Church Slavonic *mēs-ecŭ*, which J. Schmidt explains as coming from an Idg. nom. sing. **mēs* for **mēns* (see I § 220 p. 188), may have been formed directly from the root; see § 134, 1. **loiq-nōs* 'remainder, what is left over' from $\sqrt{leiq-}$ 'leave': Skr. *rēk-ṇas* 'riches' (bequest), O.H.G. *lēhan* n. O.Icel. *lān* n. 'loan'.

Of the simple adjectives no example is found in more than one language simultaneously in its adjectival function; e. g. Skr. *mahās-* 'great' beside *máhas-* n. 'greatness', *yaśás-* 'glorious' beside *yáśas-* n. 'glory', Gr. *ψευδής*, *σαφής*. On the other hand several adjectives are so found in composition. Skr. *dur-manas-* 'ill-humoured' Gr. *δυσ-μενής* 'ill-disposed', Skr. *ny-mānas-* 'having a man's mind' Gr. *Ἀνδρο-μένης*, from **mén-os* n. Avest. *dēuš-r-savah-* Gr. *δυσ-κλής* 'of ill report', from **klēx-os* n. Skr. *puru-dásas-* 'rich in wondrous deeds', Gr. *πολυ-δήνεα* *πολύβουλον*, *πολύμητιν* (Hesych.), from **dāns-os* n.

Aryan. Neuters. Skr. *śráv-as* 'fame glory', Avest. *srao-ō* 'word, prayer, glory, honour' (with *ca* 'and' it has the form *sravas-ca*): Gr. *κλέος* etc.; see above, p. 414. Skr. *jráy-as* 'level, tract', Avest. *zray-ō* O.Pers. *dray-a* 'sea'. Skr. *nám-as* 'obeisance, reverence', Avest. *nem-ō* 'prayer, invocation' (cp. O.Ir. *nem* 'heaven' p. 419), $\sqrt{nem-}$. Skr. *mán-as* Avest. *man-ō* 'thought': Gr. *μέν-ος* 'courage, anger', Lat. *Miner-va* (I § 569 p. 426). Skr. *vác-as* Avest. *vac-ō* 'word, speech': Gr. *ῥήπ-ος* *ἔπ-ος* 'word, speech' $\sqrt{yeq-}$. Skr. *sáh-as* Avest. *haz-ō* 'might': Goth. *sig-is* (*a*-stem), 'victory', $\sqrt{segh-}$. Skr. *práth-as* Avest. *fraṇ-ō* 'extent, breadth': Gr. *πλάτ-ος* 'extent, breadth' (the root in the weak grade, as in *πλατ-ύς*), O.Ir. *leth* 'side'. Avest. *raoc-ō*

1) Another and less probable explanation of this word has been mentioned in vol. I § 221 p. 189 f.

'light, clearness, brightness' O.Pers. *rauc-a* 'day', Skr. *sva-rōcas-* 'shining of itself', *√ leuq-*. Skr. *ōj-as* Avest. *aoj-ō* 'strength': Gr. *ἐπι-αυγής* etc.; see above, p. 414. Skr. *vār-as* 'width' beside *úr-as* 'breast': Gr. *εὐρ-ος* 'breadth', like *ἐὺρ-ς*; see § 104 p. 314. Skr. *kár-as* 'deed', *jár-as* 'age', *péś-as* 'form', *jáv-as* and *júv-as* 'swiftness'. Avest. *tac-ō* 'course', *drāj-ō* 'length', *haec-ō* 'dryness'.

Examples of the dative used as an infinitive; pr. Ar. **-as-ai*. Skr. Ved. *dōhásē* 'to milk' (*dōh-as* n. milking'), *bhárásē* 'to bear', *spárásē* 'to obtain'. Avest. *avanəhē* 'to help' (*av-ō* n. 'help, protection') and by an extended analogy *vaocənəhē* inf. to the indic. aor. *vaoc-a-p* from *vac-* 'to speak', *srāvayənəhē* inf. to the indic. *srāv-ayēiti* caus. 'causes to hear, announces'.

Ar. *-n-as, -t-as*. Skr. *rēk-ņas* 'riches', Avest. *raex-nō* (gladness?), see above p. 415. Skr. *ē-nas* 'oppression, wickedness, sin', Avest. *aē-nō* 'enmity, hate, vengeance'. Skr. *áp-nas* 'possession', *ár-ņas* 'wave'. Avest. *zaē-nō* 'readiness, watchfulness, guard', *xwar-nō* 'brightness, glory', *raf-nō* 'joy, happiness'. Skr. *dráviņas* 'property'. Skr. *srō-tas* O.Pers. *rau-ta* 'river' (I § 558, 3 p. 414). Skr. *rē-tas* 'seed'. Avest. *vī-sas-tō* 'obedience, learning', *parš-tō* 'fight, weapon for fighting'. Ar. *-u-as* is found in Skr. *pīvas*, see p. 415.

In Adjectives. Skr. *tarás-* 'eagerly striving' beside *táras* 'eager striving', *apás-* 'active' beside *ápas* 'work', *rakśás-* 'injuring, injurer' beside *rákśas* 'injury', *tavás-* 'strong'. Avest. *dvaēśah-* (nom. sing. *dvaēšd*) 'tormenting, tormentor' beside *dvaēšō* 'torment', *rādah-* 'giving, giver' beside *rādō* 'gift', *xwar-nah-* 'bright, glorious' beside *xwar-nō* 'brightness, glory', *aēnah-* 'hostile, enemy' beside *aēnō* 'enmity'. Skr. *dur-manas-* 'out of humour' Avest. *duš-manah-* 'ill-disposed', Skr. *su-mánas-* Avest. *hu-manah-* 'well disposed', Skr. *nṛ-mánas-* Avest. *nar-manah-* 'with a manly mind, heroic'. Skr. *su-cētas-* 'having a good disposition, wishing well', *puru-bhōjas-* 'nourishing many'. Avest. *duš-varšnah-* 'evildoer', *aiwi-aojah-* 'surpassing in strength, subduing victoriously', O.Pers. *aspa-canah-* proper name (no doubt to be compared with Skr. *cánas-* n. 'pleasure'). — Skr. *vēdhás-* 'helping, gracious', Avest. *aša-vazdah-* proper name, and *vohvazdah-* i. e. *vohu-vazdah-*

proper name, ground-form **medh + tes-*, $\sqrt{\text{medh-}}$ 'lead', Skr. *su-mēdhās-* 'intelligent', ground-form **mṛdh + tes-*, see I § 482 p. 356.

Armenian. Here the *es*-stems have been lost. A part of them became *o*-stems, as *sar*, gen. *saroy*, 'height, peak, declivity': Skr. *śiras-* Avest. *sarah-* 'head', common ground-form **kṛ-es-*.

Greek. *πέος* 'membrum virile' for **πεσ-ος*: Skr. *pás-as* the same. *φέτ-ος* *ἔτ-ος* 'year': Lat. *vetus* (originally a subst.), Skr. *vats-á-*, see p. 413 above. *θέρ-ος* 'heat, summer': Skr. *hár-as* 'glow, heat'. *τέν-ος* 'sinew, bond': Skr. *tán-as* 'offspring', Lat. *ten-us*. *ζεύγ-ος* 'yoke': Lat. *jūgera jūgeribus*, cp. also Mid.H.G. *jiuch* n. 'measure of land'. *βέλ-ος* 'missile', *ἔγχ-ος* 'spear', *ἐρκ-ος* 'enclosure', *κεῦθ-ος* 'hidden depth', *δέος* 'fear' for **δφελ-ος*, *θέρο-ος* (Aeol.) and *θράσ-ος* *θάρο-ος* 'courage', *κρέτ-ος* (Aeol.) and *κράτ-ος* *κάρετ-ος* 'strength', *πένθ-ος* 'woe, sorrow' and *πάθ-ος* 'suffering, experience, misfortune'. *ὄχ-ος* 'vehicle' instead of *ἔχ-ος* (which is preserved in Hesych.) through the influence of *ὁ ὄχος*, $\sqrt{\text{uegh-}}$; cp. Lat. *modes-tu-s* p. 418, O.H.G. *fahs* p. 420. *μῆκ-ος* 'length'. *ῆδ-ος* 'pleasure'. *αἶθ-ος* 'brand': Skr. *ēdh-as*, see p. 414 above. *ἄγκ-ος* 'valley, ravine': Skr. *āṅk-as* 'bend, curve'. *σάκ-ος* 'shield'. *ψῦχ-ος* 'cold'. *κῶδ-ος* 'glory'. *ῥίγ-ος* 'frost': Lat. *frīg-us*.

πίος 'fat' for **πιτ-ος*: Skr. *pīvas*, see above, p. 415. *ἔριος* 'wool' for **φιρ-φος*, cp. Lat. *vervex* ('laniger'). *ἔρ-νος* 'sprout, twig'. *ἔθ-νος* 'multitude, race'. *γλῆ-νος* 'show, marvel'. *δά-νος* 'gift, loan', $\sqrt{\text{dō-}}$ (cp. § 66 p. 142 f.). *τέμενος* 'piece of land'. *πάχετος* 'thickness'. *ἔδαφος* 'ground, foundation'. *κάλλος* 'beauty'.

ψευδής 'deceitful, lying' beside *ψεῦδος*. *σαφής* 'clear, plain'. *ἀσθενής* 'weak' beside *σθένος*. *εὖ-μενής* 'well-disposed' beside *μένος*. *ἀπενθής* 'unaware, uninvestigated': Avest. *baodāh-* n. 'consciousness, knowledge'. *ἀληθής* 'unconcealed, true' beside Dor. *lāthos* 'forgetfulness'. *δυσχερής* 'hard to deal with': Skr. *hāras* 'grip'; we should also add *χείρ* 'hand' if Wackernagel is right in referring *χειρ-* to **χερσ-* (Kuhn's Ztschr. XXIX 131 ff.); the gen. **χερσ-ός* would then be explained in the same way as Lat. *farr-* p. 413. — *πλή-ρης* 'full' side by side with *πλη-ρόω* 'I fill' Lat. *plē-ru-s*.

Italic. Lat. *op-os op-us op-er-is, op-er-a*, Umbr. *ose* 'opere' *osatu* 'operato', Osc. *úpsannam* 'operandam' (I § 633 p. 474): Skr. *áp-as áp-as*, see above p. 414. Lat. *vet-us vet-er-is* ('agedness, or being stricken in years; old creature', hence as an adj.) 'old', *vetus-tu-s*, Osc. *Vezkeí* dat., name of a god, '**Vetusco*' (cp. *vetusculu-s*): Gr. *φέρ-ος*. Pr. Ital. **med-os* 'measure' (Gr. *μέδ-υνο-ς*, Goth. *mit-an*): Lat. *modes-tu-s moder-ārī* (the *o* instead of *e* is due to *mod-u-s*), Umbr. *meř-s mers* 'ius, fas' for **med(o)s*, the *o* being lost by syncope, see I § 633 p. 474. Umbr. *vas* 'vitium' for **vak(o)s*, beside Lat. *vacāre*. Lat. *aes*, gen. *aer-is*, which can hardly stand for **aī-es-*, but for **aīs-*, the weak form of the stem¹⁾ (the nom. acc. *aes* instead of orig. **a(i)-os* was formed on the analogy of the other cases), *aēnus* Umbr. *ahesnes* 'aēnis' for **aīes-no-* (I § 134 p. 121): Skr. *áy-as* 'metal, iron', Goth. *áis* (gen. *áizis*) 'orc, money'.

Lat. *nem-us (-or-)*: Gr. *νέμ-ος* 'place of pasture'. *dec-us (-or-)*: Skr. *daśas-yá-ti* 'he honours, is at the service of, is obliging'. *Ven-us (-er-)*, originally n. 'love's enticement': Skr. *ván-as-* 'charm, sweetness'. *scel-us (-er-)*. *temp-us (-or-)*. *terg-us (-or-)*: Gr. *στέργ-ος τέργ-ος* 'leather, skin', esp. 'the hard hide on an animal's back', *corp-us (-or-)*. *pondus* and *foedus*, like *modes-tu-s*, have exchanged their *e* for *o* (**pend-os *feid-os*, the latter still appearing in *fīdus-tu-s*), through the influence of parallel stems in *-o-* (abl. *pondō*), cp. Gr. *ὄχος* above, p. 417, O.H.G. *fahs* p. 420.

Lat. infin. in *-er-e* for **es-i* (loc.), as *vivere* (Skr. *jīvās-ē*), *agere*, *minuere*; *ferre velle esse* are discussed in § 162. *fieri* is a new formation for (O.Lat.) *fiere*, modelled on *agī*, *sequī*, see ib.

vol-nus, *mū-nus*, *fū-nus*, *pīg-nus*, *facinus*; *mi-nus* must also be classed here; see § 135. *pectus*.

The vowel-gradation which belonged to the *-es-* suffix in the pre-Italic period (preserved e. g. in *gen-us -er-is*) was superseded in many words in favour of the form *-os-* which prevailed over the other forms. This is seen in *tempus -oris* etc.; yet

1) See Osthoff in Paul-Braune's Beitr. XIII 405.

we have also *-es-* in the adverb *temper-ī*, *tempes-tu-s*, and *temper-āre*. Similarly we have *penus -oris* etc., whilst the loc. sing. *penes* (cp. *αἰές*), which had become a preposition (or postposition), retained the form *-es-*. *-os-* is also found in derivatives, e. g. *rōbus-tu-s* (gen. *rōbor-is*) *onus-tu-s* (gen. *oner-is*), *corpus-culu-m* (gen. *corpor-is*) *opus-culu-m* (gen. *oper-is*) cp. O.C.Sl. *-os-tŭ* p. 422.

Adj. *pūbēs* and *pūber*, gen. *pūberis*. Further *dē-gener*, *bi-corpor*, both of them probably fairly modern formations having no direct connexion with the original Indo-Germanic type. Similarly the use of *vetus* (also *veter*) as an adjective was of recent date; cp. *vetus-tu-s* like *onus-tu-s*, *veter-ātū-s* like *sceler-ātū-s*. Here we have a repetition of the process by which adjectives of this kind were formed in the original language.

Old Irish. *tech teg*, gen. *tige*, 'house': Gr. *στέγ-ος τέγ-ος* 'roof, house'. *nem* 'heaven', which we may either compare at once with Skr. *nām-as* 'obeisance, reverence', so that the original sense was 'object of reverence', or suppose to stand for **neb-os* = Skr. *nābh-as* O.C.Sl. *neb-o*, its form having been influenced by words containing the $\sqrt{\text{nem}}$ - like Gall. *νεμητρον* Ir. *nemed* 'sacred thing or place'. *leth* 'side': Skr. *práthas* etc., see above p. 415. *au ō* (Mid.Ir.), gen. *aue*, 'ear': O.C.Sl. *ucho* 'ear'; should we add Gr. *ὠς* Dor. *ᾠς* 'ear'? (see § 114 p. 347). *mag* 'level tract of country', Gall. *Οὐινδό-μαγος* = O.Ir. *Find-mag*. *lōg luach* 'price, hire'.

With *-nes-*: *dū-n* 'stronghold'; even as early as in Gallic we have *Αουγν-δουνος* beside *Αουγν-δουνον*. *glū-n* 'knee'.

In Germanic the old inflexion suffered great changes.

The transference of these nouns to the *o*-declension, which appears so frequently in Gothic and Norse, seems to have taken place in protoethnic Germanic, and to have been partly due to the analogy of forms like Skr. *vats-ā-* (beside Gr. *φέτος*), p. 413. Goth. *áis* (gen. *áizis*) O.H.G. *ēr n.* 'ore' pr. Germ. **aiz-a-* (Goth. *áiza-smiþa* O.H.G. *ēr-smid*, § 40 p. 73): Skr. *áy-as* etc., see p. 418 above. O.H.G. *lefs m.* 'lip' beside A. S. *lippa m.* 'lip' (cp. I § 337 p. 267 f.) for pre-Germ. **lebes- *leps-*. Goth. *ahs*

(gen. *ahsis*) O.Icel. *ax* n. O.H.G. *ahir ehir* n. 'ear of corn': Lat. *ac-us*. O.H.G. *fahs* O.Icel. *fax* m. 'hair', no doubt due to contamination of a form **peġ-os* n. with **poġ-o-s* m. (Gr. *πόκο-ς*) (cp. Gr. *ῥχος* p. 417, Lat. *modestu-s* p. 418). Goth. *veihs* (gen. *veihsis*) n. 'borough, vicus': cp. Skr. *vēśās-* m. 'neighbour, vassal'. Goth. *peihs* (gen. *peihsis*) n. 'time' beside *peihan* 'to thrive, grow', √ *tenəq-* (I § 214 p. 181); it is usual to compare Lat. *tempus*, but I cannot think it proved that Lat. *p* is ever = Idg. *q*. Goth. *plahs-jan* 'to fear', a denominative: Lat. *locusta* for **tlocus-tā* (Osthoff, Paul-Braune's Beitr. XIII 412 f.). Goth. *rimis* (gen. *-isis*) n. 'rest', √ *rem-*. Goth. *agis* (gen. *-isis*) n. 'fear', O.H.G. *egis-līh* 'terrible' *egis-o* m. (A.S. *eges-a* m.) 'fear' *egisōn* 'to terrify': Gr. *ἄχ-ος* 'pain at heart, grief'. Goth. *sigis* n. O.Icel. *sigr* (gen. *sigrs*) m. A.S. *siȝor* m. 'victory' O.H.G. *sigir-ōn* 'to conquer', Goth. *sigis-láun* § 40 p. 73: Skr. *sáhas*; see above, p. 415. Goth. *hatis* (gen. *-izis*) n. O.Icel. *hatr* n. 'hate', Goth. *hatizōn* 'to hate'. Goth. *riqis* (gen. *-izis*) n. O.Icel. *rækkr* n. 'darkness': Skr. *rájas* etc., see above p. 414. Goth. *ga-digis* n. 'building, work': Gr. *τεῖχ-ος* 'wall', with vowel-gradation in the root-syllable (p. 413). Goth. *bariz-ein-s* adj. 'of barley' O.Icel. *barr* n. 'barley': Lat. *farr-* for **far-s-*; see above, p. 413. Goth. *skapis* n. 'harm', O.Icel. *setr* (gen. *setrs*) n. 'seat': Skr. *sád-as* etc., see p. 414 above.

No satisfactory explanation has been given of the variation between *-s-* and *-z-*, as Goth. gen. *agis-is* beside *riqiz-is*, Goth. *valvis-ōn* 'to roll oneself, wallow' O.H.G. *egis-ōn* beside Goth. *hatiz-ōn* O.H.G. *sigir-ōn*.

Remark 1. Possibly it may be connected with the fact that in certain isolated uses some of the cases retained *-és-*, e. g. in the Skr. inf. in *-ds-ē* (p. 413). Furthermore side by side with the neuter substantives there may have been adjectives with the accent upon the formative suffix, say **aḡés-* 'fearing' beside **áḡes-* 'fear', like Gr. *ψευδής* beside *ψεῦδος*, and the *-s-* may have been taken from them; compare further § 133 Rem. p. 424. Lastly in certain instances where the word was used as the first member of compound, *-s-* may have remained regularly voiceless even when the suffix *-es-* was unaccented. See von Bahder, Verbalabstr. 55.

In West-Germanic we find beside this another entirely different modification of the original declension, due to the

syncope in final syllables. After a long root-syllable, the nom. acc. *-oz* was dropped (I § 661, 2 p. 517). This loss coupled with the influence of the *o*-declension, first established a paradigm such as O.H.G. sing. nom. acc. *kalb* ('calf') gen. *kalbires* dat. *kalbire*, pl. nom. acc. *kalbir* gen. *kalbiro* dat. *kalbirum*. Then in the gen. dat. sing. *-ir-* was dropped, *kalbes kalbe* being formed on the analogy of *wortes worte* from nom. *wort*; hence *-ir-* naturally became the mark of the plural, especially in the nom. and acc. which had no other distinguishing sign. (A more remote consequence was that *-ir-*, Mid.H.G. Mod.H.G. *-er-*, was used for the sign of the plural in a multitude of words with which it had originally no connexion whatever). In the oldest period of West-Germanic this style of inflexion (*kalb* gen. *kalbes*, pl. *kalbir*) is commonest in animal names; cp. besides *kalb* e. g. O.H.G. *lamb* (A.S. *lomb*) 'lamb', and outside of this category *ei* 'egg' pl. *eigir* (A.S. *ǣg* pl. *ǣgru*), *rīs* 'sprout, twig', and other forms. Compare the use of these words as the initial members of compounds, § 40 p. 73. Other words however, through the same phonetic change in the form of the nom. acc. sing., entirely lost their *ir*-inflexion, e. g. O.H.G. *mast* n. 'mast, food, fattening': Skr. *méd-as* n. 'fat' (I § 591 p. 447 f.).

Remark 2. Certain substantives which follow the *i*- and the *u*-declension have also been regarded as representing original *-es*-stems; as O.H.G. *sigi* A.S. *size* m. 'victory', O.Sax. *heti* A.S. *hete* m. 'hate' A.S. *ege* m. 'fear', A.S. *sife* n. 'sieve' and O.H.G. *sign* *sigo* m. = *sigi*, *situ* *sito* m. 'custom' (Gr. *ἔθος*). The nom. *sigi* is said to stand for **siziz*, *-os -az* having been replaced by *-es -iz* because of the other cases, and the analogy of the m. f. *i*-stems having then come into play. This transference must have been complete before the beginning of the Christian era; for the *i*-stem appears in Strabo's *Σεγί-μνος* (cp. *Segi-mēru-s Segi-mundu-s* in Tacitus, O.H.G. *sigi-nomo*). But I can see no satisfactory reason for the displacement of *-az* by *-iz* in these words and these only, and it seems more reasonable to assume that they are original *i*-stems; in fact we have such parallel forms as Skr. *van-l-ṣ* beside *ván-as*. It is perhaps less improbable that *-os* under certain conditions should have become *-uz* in proethnic Germanic, whence the form *sign* (cp. O.H.G. *angust* § 101 p. 307); see Paul in his and Braune's Beitr. VI 187, and Bremer ibid. XI 3, who remarks: 'I see in *-uz* the representative of an Idg. sonant *s* (*z*), a subject which I hope to discuss in a systematic form at some future time'.

-nes- -tes-: O.H.G. *lēhan* n. 'loan', see above p. 415; A.S. *hrō-đor* n. beside *hrē-đ* (m.?) 'glory'. Cp. also A.S. *hæl* O.Icel. *heill* n. 'favourable omen, happiness' for **hailiz-* beside the adj. Goth. *hái-l-s* 'healthy' (§ 76 p. 206), A.S. *hlāw* n. 'grave-mound' for **hlainwiz-* beside Goth. *hlái-o* 'grave-mound' ground-form **hloj-uo-* (§ 64 p. 137) and the like.

Adjectives like Gr. *πενδής δυσμενής* do not seem to occur. It is a question whether they can be inferred from the appearance of *-s-* side by side with *-z-* in the oblique cases of the substantives and in derivatives. See Rem. 1 p. 420 above. O.H.G. *mast* 'mast, food' has also a secondary use as adj. 'fattened'.

Balto-Slavonic. Here we find only Substantives. In Lithuanian they have become masc. or fem. *i-* or *jo-*stems: *-es-i-* and *-es-ja-*.

Lith. *debes-i-s* m. and f. 'cloud' (but we have the consonantal stem preserved in the gen. pl. *debes-ū*) O.C.Sl. *nebo* 'heaven': Skr. *nābh-as* etc.; see above, p. 414.

Lith. *ėdes-i-s*, gen. *-io*, m. 'food (for animals)': cp. Lat. *eder-e*. *kalbes-i-s*, gen. *-io*, m. 'phrase, proverb', beside which we have *kalbes-ė* f. 'speech'. Gen. *mėnes-io* and *mėnes-ės* 'of a month'; see above, p. 415. The original *-es-* is also seen in *kalbes-ni-s* 'talk', *mōkes-ti-s* 'payment' and the like: see § 101 p. 307.

O.C.Sl. *slov-o* 'word': Skr. *śrāv-as* etc., see above p. 414. *uch-o* 'ear': Mid.Ir. *au*; see above, p. 419. *ok-o* 'eye'. *tělo* 'body'. Gen. *ličes-e* 'of the face'; the nom. sing. **liko*, is wanting, its place being taken by *lice*. In consequence of their similar termination in the nom. acc. sing. *es-*stems were often inflected like neuter *o-*stems; e. g. gen. *slova* instead of *sloves-e*. On the other hand some of the Slavonic *es-*stems were perhaps *o-*stems originally, and became *es-*stems only because of this same similarity of form, e. g. *drěv-o* 'tree', *dělo* 'work'. The suffix *-os-* is no doubt also to be traced in abstract nouns like *qzos-ti* 'strait', cp. Lat. *angus-tu-s*; see § 101 p. 307.

§ 133. 2. Substantives, masculine and feminine, with the suffix in the form -os-. Side by side with the neuters in -os- there existed in the original language a certain number of masculine and feminine substantives with -os- in the strong cases, -ōs in the nom. sing., -es -es-i in the loc. sing., and -s- in the weakest cases. It is only in Italic that this formation is at all fertile; and there the *ō* of the nom. sing. was carried through all the cases. The masculine or feminine form and the neuter form often appeared side by side, as Lat. *decor*: *decus* (cp. p. 411 f.).

Skr. *uś-ās-* f. Gr. *ῥώς* f. (for **āys-ōs*)¹⁾ Lat. *aur-ōr-a* 'dawn'. The acc. sing. was originally **-os-η*: Skr. *uśās-am*, Avest. *ušāh-em*, Gr. *ῥῶ* for **ῥόα*; Skr. *uśās-am* and *uśām* were re-formations, the latter modelled on the nom. *uśās*. Loc. -es-i: Skr. *uśās-i*; Gr. *ῥοῖ* was a re-formation. Gen. Skr. Ved. *uśās* instead of **uś-ś-ās*, instead of which we find later *uśās-as*, and a similar re-formation in Greek, *ῥοῦς* i. e. **ῥόος*. Does the accent of the Att. *ἔως* (acc. *ἔω*) indicate that the original accent was **āysōs*?

**āyos- *āyēs- *āyus-* (cp. **āyen- *āyun-* § 116 p. 362 f.): (Ir. acc. *aiō*, a by-form of *aiōna*, for **ai-fóa*, loc. *ai'ēs* adv. 'always'; the weakest form of the stem is found in Sanskrit only as a neuter noun, *āyus-* 'life'. Cp. also Ir. *ais aes* m. 'age' Mod. Cymr. *oes* § 108 p. 329.

Gr. *αἰδώς* f. 'shame, modesty', acc. *αἰδῶ*, and parallel to it *αἰδέο-*, in *αἰδέομαι* fut. *αἰδέσσομαι* and *ἀν-αἰδής*.

Latin. Masculines. *decor* beside *decus* Skr. *daśas-yá-ti* 'honours, is at the service of'; *tenor* beside *tenu* Skr. *tánas* 'offspring' Gr. *τίρος* 'sinew, bond'; *angor* beside *angus-tu-s anx-iu-s* Skr. *āhas* 'distress'; *tepor* beside Skr. *tāpas* 'heat' and many other similar words. *honōs honor* (*hones-tu-s*), *sūdor*, *ador*, *amor* etc. Compare also *rūmi-ficō* beside *rūmor* § 34 p. 60. In the nom. sing. -ōr (-or) took the place of -ōs on the analogy of the other cases, where -r- regularly represented -s- between vowels

1) *ῥώς* proves that the law of vowel-shortening discussed in I § 611 p. 461 did not come into operation until after the loss of intervocalic *o*.

(I § 569 Rem. 2 p. 426 f.). *aurōr-a* (see above), like *Flōr-a* beside *flōs*, cp. § 60 p. 110.

Remark. It is possible that all these nouns, excepting the word for 'dawn', were originally masculine; if so they kept their original gender in Latin, whilst Gr. *αἰθώ*; became feminine, in the same way as the *-tu-* stems (§ 108 p. 323. 327).

It is uncertain how we ought to regard the Sanskrit masculine abstract substantives *jardś-* 'weakness of age' *bhiyds-* 'fear' *tavās-* 'strength'. They belong to this section if their acc. in *-āsam* is a re-formation like *uṣāsam*. Further: were such Latin substantives as *sēdēs mōlēs plēbēs pūbēs* really, as is usually assumed, originally *s-* stems? Possibly we should assume a double class of masculine and feminine substantives in the parent language, corresponding to the two classes appearing e. g. in Greek, *ἄκ-μων* contrasted with *ποι-μῆν*, *δω-τωρ* contrasted with *δο-τήρ*, distinguished by a difference of accent and of vocalism in the suffix. The accent of *ῥῶς*; *αἰθῶς*; would then have been shifted just as that of the forms in *-ών* *-μῶν*. Adjectives like Gr. *ψευδής* (§ 132 p. 412 f.) would then bear a nearer relation to these m. and f. substantives in *-ēs* than to the neuters in *-os*.

§ 134. The Suffix *-s-* (*-ə-s-*, *-i-s-*, *-u-s-*).

Side by side with the nouns formed with *-es-* (*-os-*), which have been discussed in §§ 131—133, we find nouns which have the same *s*-sound in the suffix, but which cannot be shewn with certainty to have ever had an *e* (*o*) before the *s*. And we must remember that although *-es-* was certainly used as a single and independent suffix at the time of the dissolution of the proethnic community, it may nevertheless have arisen from the fusion of two distinct elements (*-e-s-*, or rather perhaps as in **gene-s-*, see p. 20).

The nouns here to be discussed may be arranged in four groups.

1. Skr. *bhās-* n. 'light, brilliancy' (nom. acc. *bhās* instr. *bhāśā*), Lat. *fās* n. (indecl.) originally 'utterance', √ *bha-* (Bloomfield, Amer. Journ. of Phil. IX 19 compares Att. *φῶς* with Skr. *bhās*). Ar. **dās-* 'gift' in Skr. *dās-vant-* 'rich in gifts' *su-dās-* 'giving richly' (acc. *-dās-am-* gen. *-dās-as-*) Avest. *vanhu-dāh-* 'giving good' (acc. *-dānh-em* gen. *-dānh-ō*), √ *dō-*. Skr. *jñās-* m. 'relative', cp. *jñā-ti-ṣ*. Lat. *flōs flōr-is*, *Flōr-a* Osc. *Fluusaī* dat. Lat. *spē-r-are* O.Lat. pl. *spē-r-ēs* *spē-r-ibus* beside *spē-s*. Should we class here the Greek **κράς* **καράς* in *κράατ* *καρήατ*—

'head' (for **κρᾱσ-η-* **κρᾱσ-η-*, cp. § 114 p. 347)? There is nothing to prevent our comparing with these words Skr. *mās-* 'moon, month' O.C.Sl. *měs-ecŭ* 'month' from $\sqrt{\text{mē-}}$ 'measure', see § 132 p. 415.

In these words it is possible that the *e* of *-es-* has been contracted with the preceding vowel, so that **dōs-*: **bheres-* = **dōno-m*: **bhereno-m*, see § 65 p. 138. In this case we might regard the Sanskrit stems *draviṇḍ-dās-* 'giving riches' *vayō-dhās-* 'bestowing life-power' *candrā-mas-* 'moon' (see Lanman, Noun-Infl. p. 555 f.) as the direct representatives of an original formation, and analysing them as **-d-es-* **-dh-es-* **-m-es-*. **-d-es-*: **dōs-* = Gr. *λίπ-ος*: Skr. *rēp-as* and the like; see § 132 p. 415. Lat. *vī-r-ē-s* beside *vī-s* *vi-m* cannot have suffered this contraction; but it is perfectly easy to assume that the *s*-inflexion in this word may be due merely to the analogy of older types.

2. *-s-s-*. Skr. *kraviṣ-* n. 'raw flesh', Gr. *κρέας* n. 'flesh', cp. Lat. *cruor*. Gr. *κέρας* 'horn' beside Skr. *śtras-* 'head' (originally 'prominent point'); Lat. *cere-brum* may contain either **kēres-* or **kēras-*, *γῆρας* 'old age', *γέρας* 'gift of honour', *δέμις* 'bodily frame'. Skr. *tāmis-rā* *tamis-ra-m* 'darkness' beside *tāmas*; Lat. *tenebrae* instead of **temebrae* (I § 570 p. 428 f.) and Mid.Dutch *deemster* 'dark' may contain either **temes-* or **temās-*. Skr. *rōcīṣ-* n. 'light' beside *sva-rōcas-* and Avest. *raocah-* n. 'light, clearness', O.Pers. *raucah-* 'day'. Avest. *hadīṣ-* O.Pers. *hadiṣ-* n. 'seat' beside Skr. *sādas-*. As regards the Aryan forms, however, it must be borne in mind that *-iṣ-* may represent Indo-Germanic *-i-s-*.

To this class perhaps also belong Gr. masc. *ἔρως* 'love' and *γέλως* 'laughter'. According to Solmsen (Kuhn's Ztschr. XXIX 109), there was the same ablaut-relation between these nominatives and the stems *ἐρας-* *γελας-* seen in Hom. *ἐραν-νός ἡρώσ-σατο* Pindar. *γελᾶνής* Hom. *ἐγέλασ-σα*, as between *δω-* **dō-* and *δα-* **dā-* 'give' (I § 317 p. 255 f.): *γέλως* **γελασ-ος* **γελασ-ι* etc., thence by qualitative assimilation of the vowel **γέλο(σ)-ος* **γέλο(σ)-ι*; later on they passed into the *o*-declension: acc. *γέλο-ν* *ἔρο-ν* and so forth.

3. *-i-s-*. Lat. *cinis*, *pulvis*, gen. *cineris* for **cinis-is* cp. *cinis-culu-s* (I § 33 p. 33). Danielsson (Gramm. u. etym. Stud. I

51) compares, perhaps rightly, *cinis* with Gr. *κόνη-ς*. The same scholar assumes a stem *ῥέμω-* 'ordinance, right' in *ῥέμω-κρέων ῥέμω-τ-* and so forth. Here might also be classed some of the Aryan neuters in *-iś-* (see under 2); I will add only Skr. *arcīś-* 'beam' *jyōtiś-* 'light'.

Was this *-is-* ever the weak form of an earlier *-ies-*?

4. *-u-s-*. Skr. *dhānuś-* n. 'bow' beside *dhanú-ś* m. *dhānvan-* n.; *pāruś-* n. 'knot' beside *pārvan-* n.; *mādhūś-* n. 'sweetness' beside *mādhu-* n.; *mānuś-* m. 'human being' beside *mānuś* m. Goth. *mann-* for **manu-*. Lat. *pecus* n. beside *pecu*, *genus* m. n. 'knee' beside *genu* can hardly be deemed parallel examples; see § 104 p. 313.

In a few instances we find the ablaut *-us-*: *-yes-* (*-yos-*). Mention has already been made of Skr. *āyuś-* n. 'life' compared with Gr. *αἰές αἰῶ* § 133 p. 423. Another example is Skr. *āruś-* n. 'wound' beside O.Icel. *orr* n. 'scar' for **arūiz-*.

135. The Suffix *-ies- -ies-¹⁾*.

This is a primary comparative suffix, side by side with the secondary *-ero- -tero-* (§ 75 p. 188 ff.). The fact that it is contained in the superlative suffix *-is-to-* (§ 81 p. 242 ff.) indicates that its comparative meaning was wider then that of the sister suffix *-ero- -tero-*, which from the earliest period to which we can trace it was used only in comparing two things (e. g. Gr. *πό-τερος* 'which of two?'). So that originally the combination *-is + tero-* in Gr. *ἀριστερό-ς* Lat. *sin-ister* and the like (§ 75 p. 190 ff.) was probably not a mere pleonasm.

Even in the proethnic language the comparatives and superlatives containing this suffix had been brought into connexion with 'Positives' formed with all manner of suffixes (*-u-*, *-o-*, *-ro-* etc.), and were regarded as being derived from them, e. g. Skr. *svād-īyas-* Gr. *ῥδ-ίων* 'suavior' beside *svād-ú-ś ῥδ-ύ-ς* 'suavis'. Thus *-ies-* (*-is-to-*) acquired the character of a secondary suffix, which appears very clearly in the new formations which are so

1) J. Schmidt, Das primäre Comparativsuffix, Kuhn's Ztschr. XXVI 377 ff.

common in the separate languages, such as Skr. *bráhm-tyas-* Lat. *amīc-ior*. Compare § 58 p. 107, § 81 p. 243.

As regards the ablaut of the root-syllable, the general rule seems to have been that the comparative had the strong grade (*e* in the *e*-series), and the superlative the weak grade. Parallel to this there was always a difference of accent. The corresponding positive was generally a form in which the weak-grade was regular in the root-syllable. Thus **lénogh-ies-*: **lōgh-istó-*: **lōgh-ú-* 'brisk, small, little' = Avest. *renj-yah-* Gr. ἐλάσσων for **ἐλαγχ-ων* (I § 459 p. 360, § 497 p. 365, § 618 p. 466) instead of **ἐλεγχ-ων* through the influence of the form ἐλαχ-: Skr. *lāgh-iṣṭha-s* Gr. ἐλάχ-ιστο-ς (both with the accent shifted, see § 81 p. 243): Skr. *lagh-ú-ṣ* Gr. ἐλαχ-ύ-ς; Skr. *práth-tyas-*: *prth-ú-ṣ*; Gr. κρέσσων: κράτ-ιστο-ς instead of **κρατ-ιστό-ς*: κρατ-ύ-ς; ὀλειζων: ὀλίγ-ιστο-ς instead of **ὀλιγ-ιστό-ς*: ὀλίγ-ο-ς; O.H.G. *suoz-iro*: Goth. *sut-ista*. These distinctions of ablaut were to a large extent lost through the influence of analogy; particularly as between the comparative and superlative. E. g. Skr. *lāghīyas-* instead of **lānoghīyas-* or the true phonetic form **lāh-īyas* (I § 454 p. 335 f.); and conversely *práthiṣṭha-* instead of **prthiṣṭhá-*, *bāhiṣṭha-* instead of **bahiṣṭhá-* (compar. *bāh-tyas-* posit. *bah-ú-*); Gr. τάχ-ιον instead of θῦσσον (τάχιστα, ταχύ-ς), and conversely ἐλέγχιστο-ς instead of ἐλάχιστο-ς; in μάσσων and μήκιστο-ς (μακ-ρό-ς) the vowel-grades have exactly changed places; Goth. *sut-iza* instead of **svōt-iza* (O.H.G. *suoz-iro*), but conversely O.H.G. *suōz-isto* instead of **suz-isto* (Goth. *sut-ista*).

In considering all such cases however it must be remembered that in the original paradigm of the comparative besides *-ies-* and *-ios-* the stem also appeared in the form *-is-*, before which the root-syllable must have had the weak-grade; e. g. dat. sing. **lōgh-is-ái* like the superlative **lōgh-is-tó-*; and this form of the root may also have appeared before *-iés-* (see below). We have perfect right to assume if we choose that even in the proethnic language the strong form of the root (**lénogh-ios-*) had prevailed in all cases of the paradigm of the Comparative, so that, e. g. **lōghisái* had dropped out of use in favour of **lénogh-*

isáī; but it is quite as easily conceivable that forms like **lāgh-isáī* descended into the separate languages, and there assisted in levelling the forms of the Comparative and the Superlative. The latter assumption would also make it easier to understand such instances as *μάσων:μήκιστο-ς* (Avest. *mas-yah-* O.Pers. *maḥ-išta-*).

There are some examples without vowel-gradation in the root: **plē-ios- *plē-īs-: *plē-īs-tó-: *plē-ro- = Skr. prā-yas Gr. πλέ-ες* for **πλη-ο-: Gr. πλείσ-το-ς: Lat. plē-ru-s Gr. πλή-ρ-ης*.

As regards the different forms assumed by the comparative suffix itself in different languages many points are still obscure. The history of *-ies-* is in many ways parallel to that of the participial suffix *-ues-* (§ 136).

Remark 1. It is absolutely impossible to maintain that *-iens-* was the original form of this suffix. I attacked this view in Kuhn's *Ztschr.* XXIV 54 ff., and J. Schmidt in the same periodical XXVI 237 ff. has again undertaken its defence. Schmidt imagines that *-iōns (-iēns)* in the nom. sing. masc. became *-iōs (-iēs)* in the proethnic language by a regular phonetic change (op. I § 220 p. 188) and that the nasal was dropped in other cases by analogy. To say nothing of the fact that no certain examples of this proethnic phonetic law (*-iōs* coming from *-iōns*) have been adduced (op. also p. 415)¹, the results which Schmidt's hypothesis involves are altogether incredible and inadmissible: see the Author in *Iw. Müller's Hdb.* II 55 and Solmsen, Kuhn's *Ztschr.* XXIX 83 (Collitz too declares against Schmidt, *Bezenb. Beitr.* X 65). I therefore still believe in *-ies-* (and in *-ues-* also; see p. 439).

-ies- and *-iēs-* stand side by side, just as *-io-* and *-iō-*; and the form *-iēs-* which is represented by *Skr. -iyas-* *Gr. Att. -io(σ)-* may be compared with *-iō-*, see § 63 p. 122.

The following conclusions may be considered as adequately established for the parent language (in what follows the parallel forms *-iēs-* *-iēs-* are disregarded).

1. *-iōs* in the nom. sing. masc., *-iōs* in the nom. acc. sing. neut.: Avest. *vah-yā vah-yō*, *Skr. vās-yas* (n.), *Lat. ma-jōr* instead of *-jōs* (I § 569 Rem. 2

1) R. Meringer (*Ztschr. f. österr. Gymn.* 1888 p. 134) derives the acc. pl. **gōs* (*Skr. gās Gr. βῶς*) through **gōns* from **gōyns*. On p. 138, however, he assents to my view that the acc. sing. was **gō(υ)m* before a sonant, but **gōμn* before a consonant. I confess I do not see how to reconcile these statements. I must still regard Meringer's **gōyns* as a monstrosity, and the view that *gās βῶς* are re-formations on the analogy of the acc. sing. as perfectly admissible.

p. 426 f.) *mā-jus*, O.Ir. *māo* (m.), Goth. *hāuhis* (n. adv.) for pr. Germ. *-jaz*, O.C.Sl. *bol-je* (n.) for pr. Slav. *-jos*.

2. *-jos* in the voc. masc.: Skr. *rās-yas*.

3. *-iēs-* in the loc. sing.: Skr. *rās-yas-i* (the accent has been shifted). Also in the fem. nom. *-iēs-i*, gen. *-is-iēs* etc.; levelling in different directions produced on the one hand Skr. *rās-yasī rās-yasyās*, on the other Goth. *šut-izei šut-izeins*, and O.C.Sl. *bol-jīši bol-jīšę* (instead of **bolješi *boljēę*). The suffix has also the *-ies-* form in Lith. *sald-ės-ni-s* 'sweeter' with *-es-* for *-ies-* (I § 147 p. 131), in the unique Pruss. gen. pl. *muīs-ies-on* 'maiorum' and perhaps in Lat. *mā-jes-tās* beside *mā-jor* (this may also be a new formation modelled on *hones-tās*: honor and the like) and *pē-jer-āre* beside *pē-jor* (cf. Osthoff, Zur Gesch. d. Perf. 115).

4. *-is-* in the weak cases, e. g. dat. sing. *-is-ai* loc. pl. *-is-sū*. This form of the suffix has spread through the paradigm, wholly or in part, in Gr. *πλῆς πλείας* neut. *πλῆα* (**πλῆς-*), Goth. *sut-iz-a* gen. *sut-iz-ins*, *māiz-a* gen. *māiz-ins*, O.C.Sl. gen. *boljīša* 'maioris' for **boljīs-iā* instead of **bol-is-iā* (see below). There were moreover adverbs in *-is-*: **mā-īs* = Osc. *mais* 'magis' Goth. *māis* 'more', Lat. *mag-is*, Goth. *vairs* for **vairs-iz*, Gr. *πρῆς* = Lat. *prīs* in *πρῆς-γυς* *πρῆς-βυς* *prīs-cu-s*. Further *-is-* occurred in the fem., gen. *-is-iēs* etc., see 3. Cp. superl. *-is-tó-*, § 81 p. 242 ff.

Finally I regard it as probable.

5. That the strong cases of the masc. (except the nom. sing.) had *-jos-*: acc. Avest. *vah-yānḥ-em* Gr. *ἑλῖσσω* for *-ιο(σ)-α*. The fact that in Greek *-ιοσ-* is confined to the strong cases (there is no such form as **ἑλῖσσω-ος* in the gen., for example) may be regarded as an additional proof that in the other cases another form of the suffix prevailed; for if all the cases had originally had *-ιοσ-*, they would surely have all been treated in the same way.

In Aryan, *-iš-* was displaced by *-yas-* in the weak cases: dat. sing. Skr. *rās-yas-ē* Avest. *vah-yānḥ-ē*, gen. sing. Skr. *rās-yas-as* Avest. *vah-yānḥ-ō*. Where *-yas-* is also found in the strong cases in the same group of languages, as Skr. *kaniyas-am* 'iuniorem' Avest. *vāñhanḥ-em* 'meliorem' (*-ñh-* = *-hy-*, I § 558 p. 415), it is not original, but due to a secondary change. Instead of *-yas* in the voc. sing. masc. *-yan* appears in the post-vedic language; this form is doubtless due to the analogy of *-van* (§ 136 p. 441).

In Latin the *-iōs* of the nom. sing. was carried through the whole case-system; later it became *-iōr* following the other cases, where *-s* regularly became *-r*; *mā-jor* *-jōr-em* *-jōr-is* etc.; cp. *hon-or* *-ōr-em* and so forth, § 133 p. 423.

The Old Church Slavonic nom. sing. masc. *boljī* *boljī* beside neut. *bolje* is probably not a compound word (*boljī* + *jī*), but a modification of **bol-ījī* which had the suffix in the form *-iēs-*; beside it we find *nově-jī* with *-ies-*. *boljī* owes its form to the influence of the neuter *bolje*, or of masculines like *dobljī-jī*, or of both together. The masc. terminations *-ījī* and *-jī* (instead of **-ija* **-ju* = Idg. **-iōs* **-iōs*) are due to the influence of the *-iō-* stems, such as *dobljī*; *nově-jī* bears to neut. *nově-je* the same

relation as *dobljī: doblje*. From the nom. acc. sing. neut. and nom. sing. masc. *-j-* passed on to the other cases which had *-tše- = -is-je-*: gen. *boljīša* instead of **bolīša* etc. See 3. above, fem. *boljīše* instead of **bolīše*.

But what is the origin of the nasal in Skr. *vas-yās-* (nom. *vās-yān* acc. *vās-yās-am*) and of the Greek paradigm *ἑλάσσων -ον-ος* etc.? In § 63 p. 132 we regarded *-ies-* as an extension of the comparative *-io-* by *-es-*; compare Skr. *nāv-yas-* Lat. *nov-ior* beside Skr. *nāv-ya-* Goth. *niū-ji-s*, Lat. *nim-is* beside *nim-iu-s*. Now in some instances there may have been a form *-ien-* parallel to *-io-* and having the same force. The stems formed with this stood in Greek side by side with those which had *-ies-*, and were taken into more extended use because they had an easier and clearer inflexion than that of the *-ies-* comparatives, which had broken up into very dissimilar groups through the operation of phonetic laws within the case-system; thus arose *ἡδ-ίων -ιον-ος* like *κρον-ίων -ιον-ος* (§ 115 p. 359), and *χαίρό-τερο-ς: χαίρων = πτό-τερο-ς: πτών¹*. In Sanskrit however *-yās-* and *-yān-* were contaminated, producing the form *-yās-*, just as *mahānt-* (beside *mahat-*) seems to have arisen from the fusion of an *n*-stem and a *t*-stem. (§ 126 p. 399). Cp. Danielsson, Gramm. and etym. Stud. I 49. Thus we should have side by side e. g. (1) **plē-io-* (Gr. *πλέω-ς πλέο-ς* Cret. *πλίλυ*, Armen. *li*, gen. *lioy*, 'full', Skr. *prāyēṇa prāya-śaś* 'for the most part, usually, mostly'), (2) **plē-ies- *plē-je-* (Skr. *prā-yas*, Gr. *πλείω πλείστο-ς* etc.) and (3) **plē-ien- *plē-in-* (*πλείων -ον-ος*, neut. Att. *πλείν*, cp. with the latter Cret. *πρείν* Hom. *πρίν* Att. *πρίν* beside *πρεῖσ-*; *πλείν: πλείον πλείων = Goth. mdis: hāuhis*). Compare further (1) Skr. *kan-yā* 'maiden' Gr. *καινό-ς* 'new' for **kan-io-ς*; (2) Skr. *kān-iyas-* 'younger' *kan-iṣṭhā-* 'youngest': (3) Avest. *kain-in-* f. 'girl'; Gr. (1) *ἕα-ιο-* 'easy' (*ἕη-διο-ς, ἕη-ι-τερο-ς*): (2) *ἕη-ω ἕῃω, ἕημο-ς ἕῃστο-ς*; (3) *ἕη-ων ἕῃων* (etymology doubtful, see Osthoff, Zur Gesch. d. Perf. 446 f.)²). Compare the parallel forms **āi-uo-* (Lat. *aevo-m* Goth. *dīv-s*): **āi-ies-* (Gr. *αἰές αἰῶ* Skr. *āyuṣ-*): **āi-uen-* (Gr. *αἰών αἰέν* Skr. *āyun-*) § 116 p. 362, § 133 p. 423, Skr. *fbh-va- fbh-vas- fbh-van-* 'artistic' and other examples.

Indo-Germanic. *lenəgh-(i)ios-* beside **lēgh-ú-*: Skr. *lāgh-īyas-* Avest. *renj-yah-* Gr. acc. *ἐλάσσω*, cp. p. 427 above. **sūd-(i)ios-* beside Skr. *svādú-ṣ* Gr. *ἡδύ-ς* Goth. *sut-s* 'suavis': Skr. *svād-īyas-*, Gr. *ἡδ-ίω -ίω*, Lat. *suāvior* 'instead of **sūd-ior* through the influence of *suāvi-s*, O.H.G. *suoz-iro* Goth. *sut-iza*. **ōk-(i)ios-* beside Skr. *āś-ú-ṣ* Gr. *ώκ-ύ-ς* Lat. *acu-pediu-s*: Skr. *āś-īyas-*, Gr. *ώκ-ίων* (this is not actually found, but may be

1 We find also *μαλιώ-τερο-ς* (Solon) *βελτιώ-τερο-ς* (Telesilla) compared with *μάλιον βελτιών* formed on the same principle as *σοφώ-τερο-ς* § 75 p. 193.

2 In view of this it may not be rash to see a further group of old *-io-* forms in the Att. gen. sing. of the compar. in *-ιον* (*ἀπὸ τοῦ μέλου, ἔχ θάρττου*, Meisterhaus, Gramm. d. Att. Inschr. p. 67).

inferred from ᾠκ-ιστο-ς), Lat. *ōc-ior*. **plē-īos-* (**plēis-* by a pro-ethnic contraction from **plē-is-*; see I § 116 p. 108) beside Lat. *plē-ru-s* Gr. πλῆ-ρ-ης: Skr. adv. *prā-yas* Avest. *frā-yah-*, Gr. πλείω πλέες, Lat. *plēōr-ēs* or *plēōr-ēs* and *plīs-ima* carm. Arv., (O.Ir. *lia*, see p. 435), O.Icel. *fleir-e* (re-formed to correspond with *meir-e*). **mō-īos-* **mō-īs-* beside O.Ir. *mā-r* Gall. *-māru-s* (in proper names) 'great' Goth. *-mēr-s* 'great' (cp. § 81 p. 247): Osc. *mais* 'magis', O.Ir. *māo mō*, Goth. *māiz-a* adv. *máis*¹⁾; perhaps Gr. *Μαίων* should also be classed here.

Aryan. Skr. *vās-yas-* Avest. *vah-yah- vač-yah-* (I § 558 p. 415) beside *vās-u- vanah-u-* 'good'. Skr. *āś-īyas-* Avest. *ās-yah-* beside *āś-ū- ās-u-* 'swift': Gr. ὠκ-ίων etc., see above. Skr. *māh-īyas-* Avest. *maz-yah-* 'greater': Gr. Ion. μῆζων, Lat. *mājor* (cp. I § 135 p. 122) *mag-is mag-is-ter* (cp. I § 469, 8 p. 346 f.). Skr. *néd-īyas-* Avest. *nazd-yah-* 'nearer' for pr. Ar. **na-zd-*; see I § 591 p. 447 and II § 4 p. 9.

Skr. *vār-īyas-* beside *ur-ū-* 'wide'. *śrē-yas-* beside *śrī-lá-* 'fair, glorious': should we compare Gr. *κρείων* 'noble, princely, ruler' (which has passed into the *-rr-* declension, like *θεράπων* etc., see § 114 p. 350)? *kšēp-īyas-* beside *kšīp-rá-* 'quick'. *dāv-īyas-* beside *dū-rá-* 'distant'. *tēj-īyas-* beside *tig-má-* 'sharp'. *srāj-īyas-* beside *srag-vīn-* 'crowned'. *nāv-yas-* *nāv-īyas-* beside *nāv-a-* 'novus': Lat. *nov-ior*, O.H.G. *niw-iro niuw-iro* 'novior'. *prē-yas-* beside *priy-á-* 'dear'. *jyā-yas-* 'mightier'. As regards Skr. *sthēyas-* instead of **sthā-yas-* beside *sthi-rá-*, *sphēyas-* instead of **sphā-yas-* beside *sphi-rá-*, see § 81 p. 244.

Avest. *mas-yah-* 'greater' beside O.Pers. *maṣ-išta-* 'the greatest': Gr. *μάσσων* beside *μακ-ρό-ς* 'long'. Avest. *taš-yah-* 'more warlike, stronger' ground-form **tenq-ies-* (I § 200 p. 168, § 473 p. 350), beside superl. *tanc-išta-*. In Avestic the metre often shows that the reading should be *-iyah-*, as *renjiyah-*, *nazdiyah-*, *masiyah-* (beside *mah-*) *s.ya*

In Sanskrit we find occasionally new formations from noun-

1) In the light of this paragraph what is said about this Gothic word in I § 635 p. 475 should be corrected.

stems, as *tīkṣh-īyas-* from *tīkṣ-ḥá-* 'sharp', *bráhm-īyas-* like *bráhm-iṣṭha-*, *drádh-īyas-* like *drádh-iṣṭha-*; see § 81 p. 245.

Greek. *-io(σ)- -īo(σ)-* occurs only in the acc. sing. masc. and the nom. acc. plur. masc. and neut. By its side we find through all the cases *-ιον- -ī-on-* (*-iv-* in *πλεῖν, πορύν, πορύν, πορύν*); in Rem. 1 p. 430 I have stated my conjecture that this form represents Idg. *-ion-* and never contained *s*. *-to(σ)- -io-* occur in Attic.

The examples are given in the form of the acc. sing. masc. in *-ιω -īō* for **-io(σ)-α *-īo(σ)-α*.

πάσσω and *παχ-ίω* beside *παχ-ύ-ς* 'fat, thick'. *θάσσω* for **θαγχ-ιοσ-α* beside *ταχ-ύ-ς* 'swift' (we must compare Pol. *dążyć* 'to press forward, aspire, hasten', see Bezzenberger in his Beitr. XII 241; the favourite comparison of this with Avest. *tašyah-* has not been reconciled with phonetic law), cp. *ελάσσω* p. 427. *βραδ-ίω* beside *βραδ-ύ-ς* 'slow': Skr. *mrad-īyas-*. *γλυκ-ίω* beside *γλυκ-ύ-ς* 'sweet'. *ὀλεῖζω* beside *ὀλιγ-ο-ς* 'little' *ὀλίγ-ιστο-ς*, from which *ὀλιζω* was afterwards formed. *κακ-ίω* beside *κακ-ό-ς* 'bad'. *ἐχθ-ίω* beside *ἐχθ-ρό-ς* 'hostile'. *ἥσσω* 'inferiorem' beside *ἥκ-α*; *ἡττάσθαι* instead of **ἡτιτοῦσθαι* follows *νικᾷσθαι*, and from the verb *ἡττάσθαι* the substantive *ἡττα* was itself formed (Wackernagel, Kuhn's Ztschr. XXX 299 f.). *ἀμείνω* for **ἀμεν-ιω* 'meliozem'. A form **ἀγχ-ιοσ-* 'nearer' may be inferred from the adv. *ἄσπον* for *ἀγχ-ιον* (beside *ἄγχ-ι*): Skr. *ah-īyas-* O.H.G. *eng-ir-o* 'narrower'. *μείω* 'minorem' for **μι-ιο(σ)-α* beside **mi-no-** *mi-nu-*, Lat. *mi-nus* Goth. *minniza* for **mi-nu-is-*, see below; the superl. *μείστο-ς* stands for **με(ι)-ιστο-ς* (for the vowel-grade of the root cp. *ἐλέγχ-ιστο-ς* and the like p. 427) or else is a new formation in imitation of its opposite *πλεῖστο-ς*. *πλείω* *πλέω* 'more' instead of **πλη-(ι)ο(σ)-α* has been affected by the form of *πλεῖστο-ς* (like Skr. *sthē-yas-* instead of **sthā-yas-* through the influence of *sthēṣṭha-*, § 81 p. 244), and perhaps also to some extent by *μείω*; by the side of it we find a form *πλεισ-* for **plēis-*, belonging properly to the weak cases of the comparative, in Hom. *πλέ-ες* *πλέ-ας* Cret. *πλί-ες* neut. *πλί-α* (*ι* for *ε*, I § 64 p. 51¹⁾): Skr. *prā-yas* etc.; see p. 431 above. *κρείσσω* *κρείττω*

1) Here for 'in the Doric dialects' read 'in some Doric dialects'.

beside Ion. κρέσσω (: κράτ-ιστο-ς κρατ-ύ-ς 'strong' and μείζω beside Ion. μείζω (: μέγ-ιστο-ς μέγ-α-ς 'magnus') owe their *ει* to the analogy of χείρω ἀμείνω ὀλείζω, conversely Ion. ἔσσω beside ἡττω follows κρέσσω, cp. I § 639 Rem. p. 479 and Ber. d. sächs. Ges. d. Wiss. 1883 p. 193.

In rare instances we find nominal suffixes preceding the comparative -ιοσ-, as καλλ-ίω 'pulcriorem' beside κάλλος n., βελ-τ-ίω 'meliorem'. Compare the superlatives, § 81 p. 245.

In Cretan (Gortyn) we find *πρείγω* (*πρείγωνα*) beside *πρεῖγυ-ς* and *κάρτω* (*καρτόνανς*) instead of **κρέττω* = Ion. κρέσσω, beside *καρτύ-ς*. It remains doubtful whether these forms are regular phonetic representatives of **πρειωγ-ιω*, **καρτ-ιω* (cp. Dor. *κάρρων* for **καρσων*), or new formations with -ω instead of -ιω on the model of some one or more forms where the *ι* had regularly disappeared.

One example of an adverb in -is is *πρεισ-* ('before') found in the compound Cret. *πρεῖσ-γυ-ς* (whence *πρεῖγυ-ς* by assimilation). Thessal. *πρεῖσ-βυ-ς* (cp. I § 428 p. 316), which corresponds to the *prīs-* of the Lat. *prīs-cu-s* (beside *prior prius*), cp. Rem. 1 p. 429 and for -γυ- βυ-, § 91 Rem. p. 277. Obviously **πρεῖς* is related to Cret. *πρεῖν* (Hom. *πρίν* Att. *πρίν*) as *πλεισ-* (in *πλέες πλεῖσ-το-ς*) to Att. *πλεῖν* and as *πλείους* (i. e. **πλειουσ-ες*) to *πλείον-ες*, cp. Rem. 1 p. 430. If we start from an original **πρέι-ιος*- **pri(i)-is-* (by analogy **pri-ιος*- and **prei-is-*), Lat. *prīs-* may represent not only **πρεῖς* but also **prii-is* (cp. *πρίν*). It must be admitted that the forms *πρέσγυ-ς* *πρέσβυ-ς* are still obscure¹⁾.

Italic. O.Lat. *minerimu-s* for **minis-imo-s* (cp. *plūr-imu-s* etc.), *minis-ter*, Osc. *minstreis mistreis* 'minoris': cp. Goth. *minniza*

1) The student who believes that the doctrine of 'hyphaeresis' (κέσμετο = *κε(ι)εσμετο, σπέσαι = *σπεσαι) is not a mere midsummer madness, may find comfort in supposing that **πρεσ-* stands for an older form **πρε(ι)εσ-*, an analogical modification of an original loc. **pri-ies*. It is simpler however to analyse **πρεῖς* into *πρ* + *-εις* (the genitive ending), and to regard it as a by-form of *πάρ-ος* Skr. *pur-ás* (I § 294 p. 234): Prellwitz, De dial. Thessalica 1885 p. 11 takes a very similar view, but a different explanation may be found in Per Persson's *Studia etymologica*, Upsala 1886, p. 95.

Brugmann, *Elements*. II.

'minor' for **mi-nu-is-* O.C.Sl. *mǫnjǫŕŭ* 'minor' and the archaic Gr. *μῑνω* 'minorem' for **μει-ιος-α* (p. 432); *minus* was a neuter like *vol-nus* Gr. *δά-ρος* (see § 132 p. 415 and p. 418); it originally meant 'minority', and then like *vetus* came to be used as an adjective; when it had thus become the opposite of *mājus*, *mājōris* *mājor* etc. gave rise to the analogous formations *minōr-is* *minor* etc.¹⁾ Umbr. mes-tru f. 'maior' (cp. § 75 p. 195), Osc. *mais* 'magis': O.Ir. *māo* etc., see p. 431 above. Osc. *pústir-is* 'posterius'.

Lat. *ōc-iōr* beside *acu-pediū-s*: Skr. *ḍś-iyas-* etc., see p. 430 f. above. *nov-iōr* beside *novō-s*: Skr. *nāv-yas-* etc., see p. 431 above. *sen-iōr* beside *senex*: Skr. *sán-yas-* beside *sán-a-s* 'old', O.Ir. *sin-iu* 'older' *sinser* 'the elder, eldest' for **senis-tero-s* beside *sen*, Lith. *senēs-ni-s* 'older' beside *sēn-a-s*, cp. also Goth. *sinista* 'eldest'. *mel-iōr*. *pē-jor*. *mājor* *mājus* with *magis* beside *māgnu-s*: Skr. *māh-īyas-* etc., see p. 431 above; the evidence of the Gr. *μέγα-ς* and the Goth. *mikil-s* shews that the root originally had *e* and hence it seems necessary to assume that the Latin word has been influenced by the pr. Ital. **maīs-* = Idg. **mā-īs-* (cp. Osc. *mais* beside Lat. *magis*, Umbr. mes-tru beside Lat. *magister*), which belongs to a different root.

pleōrēs and *plūsima*; see p. 431 above. It has not yet been clearly shewn what relation the forms *plous plūs*, *plūr-ēs*, *plōer-a* and *plourume* (C. I. L. I 32) bear to **plē-īos-* which we must assume as the ground-form of the comparative stem.

Remark 2. For a discussion of these latter forms see Stolz (Iw. Müller's Handb. II p. 164), Danielsson (Pauli's Altital. Stud. IV p. 164 and Osthoff (Paul-Braune's Beitr. XIII 445 f.). Danielsson's proposal to assume a form **plō-īos-* parallel to **plē-īos-* is the simplest from the phonetic standpoint. We should start from a stem **plōīs-*, whence we should arrive at **plōīs-* (according to I § 612 p. 462)²⁾, and then at *plūs-*. In *plous- ou* would be merely a graphic representative of the sound *ū*.

1) It seems to me less probable that even at the time when *minus* was still a substantive, there was also a masc. form *minor*, like *decor* beside *decus* and the like (§ 133 p. 423).

2) In the third line of this paragraph read 'explosive or spirant' instead of 'sonant'.

Adverbs in *-is-*. Lat. *mag-is* beside *mājor*. *nimis*. *satis*. *prīs* in *prīs-cu-s* beside *prior*, see p. 433 above; is it also contained in *prīdem*?¹⁾ Osc. *mais* 'magis': Goth. *māis*.

There was in Latin a very great deal of levelling between the form of the comparative and that of the positive, which converted *-ies-* into a secondary suffix. *suāvior* instead of **syād-ior* follows *suāv-i-s* for **syād-u-i-s*, cp. Skr. *svād-īyas-*. *tenuior* instead of **ten-iōr* follows *ten-u-i-s*, cp. Skr. *tan-īyas-*. *levior* instead of **leg-iōr* follows *levi-s* for **legu-i-s*. *sēr-iōr* instead of **sē-(i)ōs* follows *sē-ru-s*; in the same way, in old Irish, side by side with the regular *sia* there arose a form *sīriu sīre* on the analogy of the positive *sī-r* 'long'. *jūn-iōr juven-iōr*, cp. Skr. *yāv-īyas-*. *audāc-iōr*. *facil-iōr*. *asper-iōr*. *doct-iōr*. *sapient-iōr*.

Lat. *super-iōr inter-iōr dexter-iōr* Osc. *pústir-is*; see § 75 p. 195. Late formations are *plūriōrēs proximior* and the like.

Old Irish. Only the nom. sing. has been kept.

māo mō for **mō-īōs*, beside *mā-r* 'great': Osc. *mais* etc., see p. 431. *sin-iu* beside *sen* 'old': Skr. *sán-yas-* etc., see p. 434. *laig-iu* 'smaller'.

It is often a secondary suffix, as in *sīr-iu* (see above), *foills-iu* from *follus* 'manifest', *uaisl-iu* from *uasal* 'high'.

Sometimes we find *-u* instead of *-iu* after consonants, as *lug-u* beside *laigiu*. This is perhaps a new formation modelled upon those forms in which *i* had been dropped between vowels, such as *māo* (**māu*).

The forms in *-a* have not been explained: examples are with *māa mā* side by side *māo*; *lia* beside *il* 'much': Skr. *prā-yas* etc., see p. 431 above; *sia* beside *sī-r* 'long'; *ōa* beside *ōac* *ōc* 'young': Skr. *yāv-īyas-*; *nessa* 'nearer'.

-is-tero-: *sinser* *ōser*, see § 75 p. 196.

Germanic. As a rule, the suffix is extended by *n*-suffixes.

1) *prīdiē* can only be regarded as **prīs-diē* if it is assumed that *postridiē* stands for **postris-diē* (cp. Osc. *pústir-is*) (Havet's explanation, in *Mém. de la Soc. de lingu.* IV 229, seems to me untenable). But *postrī* may also be loc. sing. of *postro-*, and *prīdiē* may have been formed later in imitation of *postridiē*.

These are absent only in such adverbs as Goth. *háuh-is* 'higher' *nēhv-is* 'nearer', *hald-is* 'more gladly, potius, rather' *fram-is* 'further on'; the termination *-is* seems to be the original neuter termination *-ios* (Rem. p. 428 f.), while such adverbs as Goth. *vairs* O.H.G. *wirs* 'worse', for pr. Germ. **wirs-iz*, Goth. *mins* O.H.G. *min* 'less', for **minu-iz* represent Idg. *-is* (see loc. cit.).

Pr. Germ. *-iz-en-* (*-iz-en-*) m. n. (f. Goth. *-iz-ein-* O.H.G. *-ir-ōn-*). Goth. *sut-iza* O.H.G. *suoz-iro* 'sweeter': Skr. *svād-tyas-* etc.; see above, p. 430. Goth. *máiza* O.H.G. *mēro* 'greater': Osc. *mais* etc., see above, p. 431. Goth. *hard-iza* O.H.G. *hart-iro hert-iro* beside Goth. *hard-u-s* 'hard': Lith. *kartės-ni-s* beside *kart-ù-s* 'bitter'. Goth. *háuh-iza* O.H.G. *hōh-iro* beside Goth. *háuh-s* 'high'. Goth. *bat-iza* O.H.G. *bezz-iro* 'better'. Goth. *vairs-iza* O.H.G. *wirs-iro* 'worse, wicked'. The forms have often been levelled to match the positive, and secondary formations have arisen: Goth. *jūh-iza* O.H.G. *jung-iro* and *jūg-iro* beside Goth. *jugg-s* O.H.G. *jung*, as contrasted with Skr. *yáv-tyas-* O.Ir. *ōa*, cp. O.H.G. *jungisto* § 81 p. 248; Goth. *alp-iza* O.H.G. *alt-iro* beside Goth. *al-p-ei-s* O.H.G. *al-t* 'old'. The origin of Goth. *minn-iza* O.H.G. *minn-iro* for **mi-nu-iz-*, compared with Gr. *μείω* Lat. *minis-ter* O.C.Sl. *mīnjīřī*, is obscure.

-ōz- -ōz-en- appeared in proethnic Germanic side by side with *-iz- -iz-en-*; see § 81 p. 248. It is used only in the comparatives of *o*-stems in Gothic and (with rare exceptions) in Old High German. Adv. Goth. *sniumundōs* 'more hastily', *aljaleikōs* 'otherwise'. Goth. *frōdōza* from *frōp-s* 'wise', *svinþōza* from *svinþ-s* 'strong, powerful', O.H.G. *liobōro* from *liob* 'beloved', *liohtrōro* from *liohtr* 'bright', *gileganōro* from *gi-legan* 'apt, suitable': *hōhōro* (also *hōhiro*) from *hōh* 'high', *hērōro* (also *hēriro*) from *hēr* 'grand, glorious'; this variation is frequent; *tiurōro* (and *tiuriro*) from *tiuri* 'dear, valuable'.

O.H.G. *obarōro* (*obarōsto*) from *ob-aro* 'upper', *aftrōro* (*aftrōsto*) from *af-tro* 'later', *fodrōro* *fodarōro* (*fodarōsto*) from *for-dro* *for-daro* 'former'. *mēr-iro* and *mērōro* from *mēro*.

Balto-Slavonic. In Lithuanian the only form of the suffix is *-ies-*, in the combination *-ē-s-n-i-s* *-ē-s-n-é*; the origin of

the second part (*-n-jo-*) is difficult to explain (an attempt may be found in Schmidt's paper in Kuhn's *Ztschr.* XXVI 399 f.). In Slavonic in the nom. acc. sing. neut. *-je* = Idg. *-jos*; as regards *-jīše-* instead of *-īše-* = Idg. *-is-jo-* and nom. sing. masc. *-jījī* (later *-jijī*, no doubt by the rule in I § 36 p. 37) *-jī*, see p. 429 f.

Remark 3. For the Lithuanian comparative adverbs in *-jaus*, such as *saldžiaūs* 'more sweetly', whose suffix has nothing to do with *-ies-*, see § 81 p. 248 f.

Lith. *sald-ēsni-s* O.C.Sl. *slaždījī*, neut. *slažde*, beside *sald-ū-s* *slad-ū-kū* 'sweet'.

Lith. *gerēsni-s* beside *gēra-s* 'good', *didēsni-s* beside *dīdi-s* 'great'. It is clearly denominative in e. g. *baltēsni-s* from *bāl-ta-s* 'white' *jaunēsni-s* from *jáu-na-s* 'young'.

In Prussian a solitary example with *-ies-* is preserved (*-ies-* no doubt = Idg. *-ies-*): *muis-ies-on* 'maiorum'.

O.C.Sl. *boljījī* *boljījī* neut. *bolje* 'greater': Skr. *bāl-īyas-* 'stronger, more powerful'. *gorjījī* 'worse': Skr. *gār-īyas-* 'gravior', *mīnjījī* 'smaller': O.Lat. *miner-imu-s* *minis-ter*, see pp. 433 f. 436 above. *krēplījī* beside *krēpūkū* 'strong'. *chuždījī* beside *chudū* 'bad'. *vyšījī* beside *vysokū* 'high'. As to the effects produced by the first *j* of *-jījī* upon preceding consonants, see I § 147 p. 132 ff.

This formation however is not so frequent in Slavonic as that in *-ě-jīs-*: nom. sing. masc. *-ějī* nom. acc. sing. neut. *-ėje* gen. *-ějīša* and so forth. *novějī* from *novū* 'new'. *silnějī* from *silnū* 'strong'. *mūnožajī* from *mūnogū* 'multus', for **mūnogējī* according to the rule given in I § 76 p. 66. As the last example shows, the *ě* of *-ějī* was Idg. *ē*, and it can scarcely be doubted that this comparative formation arose from the addition of the suffix *-ies-* to the instr. sing. in *-ē* of the *o*-stems; compare the Germ. comparative in *-ōz-(en-)*, formed from the instr. sing. in *ō*. From the nom. sing. in *-ě-jī* *-ě-je*, *j* passed into the other cases; hence the gen. *-ě-jīša* instead of *-ě-īša*, and so forth. The Prussian comparatives with *-ais-* seem to be of the same kind; e. g. *malda-is-in* acc. sing. masc., from *malda-* 'young', cp. O.C.Sl.

mladě-ŕi beside *mladŭ* 'young', *urais-in* beside *ura-* 'old', *massais* adv. 'less' beside Lith. *māža-s* 'small'. It is doubtful however whether these forms come from the instrumental in *-ē* or from that in *-ō*, whether *-ais-* represents *-ē-is-* *-ēis-* or *-ō-is-* *-ōis-*.

§ 136. The Suffix *-ues-¹⁾*. This served to form the Perfect Participle Active.

In this participle as elsewhere the perfect stem was reduplicated; cp. Skr. *ba-bhū-vās-* Gr. *πi-φv-ώς* from *√ bhe-* 'become'. Even such forms as Goth. pl. masc. *bēr-us-jōs* 'parents' Lith. fem. *sėd-us-i* (beside *sėd-au* 'I sit') contained reduplication, as we shall see when we come to discuss the verb.

Remark 1. It may be assumed that the syllable of reduplication had not come to be regarded as an integral element in the formation of the *-ues-* participle, until the latter had been associated with the perfect system (single forms with *-ues-* may very well have had the reduplicating syllable before that time, see § 52, 2 p. 93 f., and these very forms may have been the chief factors in cementing the connexion of this participle with the perfect-system). It is therefore a question whether the partic. Skr. *vid-vās-* Gr. *φιδώς ειδώς* has not descended as an unreduplicated form from a period older than the date at which this association had taken place; it is certain that the infinitive Avest. *vid-van-ōi* Gr. *ειδ-εν-αι* (§ 116 p. 363), whose connexion with the verb belongs to a comparatively late period, never had the reduplication. I conjecture that this participle of *φιδ-* was always unreduplicated, and being a word very frequently used banished the reduplication even in the forms of the finite verb (Skr. *vēda* Gr. *οιδε* etc.). Other participles without reduplication must be explained in the same way, e. g. Skr. *sah-vās-* *viśi-vās-*, Gr. *ειx-ώς*, *αγνισ* (sc. *ἡ ὁδός*) *αἰθνισ* (sc. *δενε*)²⁾, Lith. *džg-ęs* O.C.Sl. *žeg-ŭ*, Lith. *vžž-ęs* O.C.Sl. *vez-ŭ*.

The root-syllable has generally the weak-grade of Ablaut; this is regular in Aryan, as Skr. *ri-rik-vās-* beside *ri-rēc-a* 'he

1) J. Schmidt, Das Suffix des participium perfecti activi, Kuhn's Ztschr. XXVI 329 ff. W. Schulze, Zum participium perfecti activi, ibid. XXVII 547 ff. (with this essay compare Spitzer, Lautl. des arkad. Dialektes, Kiel 1883, p. 11 ff.). F. Miklosich, Beitr. zur altsloven. Gramm., Vienna 1875, p. 5 ff. (das Partic. praet. act. I).

2) Cp. E. Wörner, Die Substantiva auf *νισ*, in Sprachwissensch. Abh. aus G. Curtius' gramm. Gesellsch. 1874 p. 111 ff. On p. 114 the author writes of participles like *αγνισ* that 'either they have lost their reduplication, or else — more probably — they never had any'.

set free, made empty', *ca-kṛ--vās-* beside *ca-kār-a* 'he made', Gr. *ιδ-νῖα* f. 'knowing' beside *οἶδε*, Lith. *višk-ės* O.C.Sl. *vlūk-ŭ* beside the pres. *velk-ŭ vlék-a* 'I trail'. Certain forms, however, seem to have originally had the strong grade, that is *e* in the *e*-series, *ē* in the *ē*-series and so forth. This is indicated by Gr. *εἰδώς* (: *ιδ-νῖα*, *οἶδε*), *κεκλεβώς* Messen. (: *κέκλοφε*), *ἐρρηγεῖα* Heracl. (: *ἔρρωγε*), *λεληκώς* (: *λελυκνῖα*), *ἀρηρώς* (*ἀραρνῖα*), *ἐστη-ώς* (: *ἐστᾶ-ώς*) and the like; also by Goth. *veitvōþ-s* 'witness', if, as is probable, its *ei* = Idg. *eī* (see below)¹). It may be assumed, that originally this form of the root was proper to the strong cases of the masc. and neut., where the participial suffix appears in its *-o-* form (*-uōs-* not *-uēs-*): nom. sing. masc. **uēid-uōs* acc. **uēid-uos-n*. Further explanation of the forms assumed by the root-syllable (e. g. Goth. *bēr-us-jōs* Lith. *séd-ės*) must be reserved for the section dealing with the formation of the perfect-stem.

With respect to the phonetic variation in the character of the participial suffix, our enquiry into its original form or forms is met by the same difficulties as we encountered in dealing with the primary comparative suffix (§ 135). Much has still to be explained.

Rem. 2. In Kuhn's *Ztschr.* XXIV 69 ff. I have attacked the view (which J. Schmidt, *ibid.* XXVI 337 ff., has again undertaken to defend) that this suffix originally contained a nasal (*-uens-*). My criticism (§ 135 Rem. 1 p. 428) of the old view of the comparative suffix, applies equally well to this. It is absolutely untenable. The arguments on either side are on the whole the same, see *loc. cit.* I therefore still regard *-ues-* as the original form.

There is no record of a form *-uues-* parallel to *-ues-* (cp. *-iies-* beside *-ies-*). Osthoff, *Zur Gesch. d. Perf.* 401 ff., endeavours to shew that in Skr. forms like *ōkivds- paptivds-* the termination *-ivas-* took the place of *-uvas-*.

If we disregard this question as to the initial part of the suffix and regard it simply as *-ues-*, the following assumptions may be considered as adequately established for proethnic Indo-Germanic.

1. The nom. sing. masc. ended sometimes in *-uōs*, Gr. *εἰδ-ώς*, sometimes in *-uēs*, Lith. *dā-ves* instead of **da-vēs* (see below). The pr. Ar. *-uās*, Avest. *vid-vā*, may represent either termination; here we must notice the

1) O.C.Sl. *vlékū* and *brégū* prove nothing. See O. Wiedemann, *Beitr. zur altbulg. Conjugation*, 1886. p. 132 f.

Skr. compounds with *á-dúš-sú*, as *á-vidvas-sú-vidvas-* beside *vid-vás-*, as favouring the view that *-uos* and *-ués* existed side by side in Aryan.

2. *-uos* in nom. acc. sing. neut.: Gr. *εἰδ-ός*. There was probably a parallel form *-ués*, compare the masc. *-ués*. It remains uncertain whether the Lat. neuter forms *cadāver* and *papāver* contained this suffix (*-ver* would have taken the place of the phonetically regular **-ves*).

3. *-uos*, or (under other conditions) *-ues*, in the voc. sing. m.: Skr. *vid-vas*.

4. *-ués* in the loc. sing.: Skr. **-vas-i* (there is unfortunately not a single example of this case in our text of the Veda). We may again directly compare with this the feminine formation (cp. § 135 p. 429): nom. *-ués-i* gen. *-us-ies*: Gr. *-eia* beside *-via*; an original *γεγονεῖα*: **γεγον-υᾶς* became, by levelling, on the one hand *γεγονεῖα*: *γεγονεῖας*, on the other *γεγονυῖα*: *γεγονυῖας*; cp. also Laced. *βίδεοι* beside *βίδυοι* *ιδυῖοι* *ιδῶοι* name of an official ('inspectors').

5. *-us-* in the weak cases: dat. sing. Skr. *vid-úš-ē* Avest. *vid-uš-ē*, gen. sing. Skr. *-úš-as* Avest. *-uš-ō*, gen. pl. Skr. *-úš-ām* Avest. *-uš-qm*, instr. pl. Avest. *-ūž-biš*. Further in the fem. suffix *-us-īē-* and the corresponding masc. neut. *-us-īo-*: gen. sing. f. Skr. *vid-úš-yās* Gr. *id-via*, Gr. pl. *ιδυῖοι* *βίδυοι* (see 4), Goth. *bēr-us-jōs* m. 'parents', gen. sing. f. Lith. *vilk-us-ios* O.C.Sl. *vlūk-ūšę* gen. sing. m. Lith. *vilk-us-io* O.C.Sl. *vlūk-ūša*. Cp. further the Ar. nom. sing. in *-uš*: Skr. *vid-úš* Avest. *vid-uš* *maman-uš* and other like forms, compare perhaps Oso. *sipus* 'sciens' and O.C.Sl. *vlūkū* (see below), and again the comparative formation Skr. *vidúš-tara-* Avest. *jāger^o-buš-tara-*.

Lastly, I regard it as probable

6. That the strong cases of the masc. (except the nom. sing.) had *-uos-*, where the tense-stem bore the accent: acc. sing. Avest. *vid-vāmh-em*.

It will be remembered that we have regarded *-ies-* as an extension of *-īo-*, and assumed the existence, side by side with *-ies-*, of a form *-ien-* with the force of a comparative suffix (§ 135 p. 430). In the same way, I regard *-ues-* as an extension of *-uo-* (cp. Skr. *pak-vá-* Lat. *ar-vo-s* *pas-cuo-s* *perspicuo-s* *residuo-s* and the like, see G. Curtius, Ber. d. sächs. Ges. der Wiss., 1885, p. 432)¹⁾, and I assume the existence of a parallel form *-uet-*, made by the addition of the *-t-* (*-et-* *-at-*) discussed in § 123 p. 389 ff. This *-uet-* appears in Greek and Gothic: Gr. acc. sing. *εἰδ-ότ-α* gen. sing. *εἰδ-ότ-ος* etc., Hom. *τεστν-ώτ-α*, Goth. *veit-vōd-* 'witness'; *veit-vōd-*: **vid-ues-* = Goth. *mē-nōþ-*: **mē-nes-* (Lith. gen. *mēnes-io*), see § 123 p. 393 f. The form *-uōt-* was originally proper to the nom. sing. masc., and the phonetic coincidence of *-uos* and *-uōt-* in Greek produced there the contaminated declension. I doubt, however, whether this was also the origin of the Skr. *-vāt-* in loc. pl. *vid-vāt-su* instr. pl. *vid-vād-bhiḥ* nom. acc. neut. *vid-vāt*. We saw in § 127 p. 405 that in proethnic Aryan these participles

1) We have the two side by side in **āi-ues-* **āi-uo-* § 116 p. 362 f. § 133 p. 423.

coincided with the *vant*-stems in the formation of the nom. and voc. sing. masc.: *-yās* and *-yas*. Now pr. Ar. **-uś-śu* loc. pl. and **-uś-bhiś* instr. pl. (Avest. *vid-ūz-biś*) must have regularly become in Sanskrit **-uṣṣu* and **-uḍbhiś*, and similarly, **-yas-su* and **-yaz-bhiś* (if *-yas-* had taken the place of *-uś-* before the phonetic change of *ś* and *z* came into operation) must have become *-vatsu* and *-vadbhiś* (I § 557 p. 412, § 591 p. 448). In either case, especially in the latter, a new and closer phonetic relation to the *vant*-stems was established. If **-uṣṣu* **-uḍbhiś* arose first, then it must have been just the association with the *vant*-stems that superseded these terminations by *-vat-su* *-vadbhiś*¹). The neuter form *vid-vāt* and the post-Vedic *vidvattara* 'wiser' *vidvattā-vidvattva-m* 'erudition' were further results of this connexion.

Now whence comes the nasal in Skr. *-vās*? To explain this as we explained the nasal in Skr. *-yās* (p. 431) as being derived from a form *-yen-* parallel to *-yes-*, is hardly probable, because there are no participial forms corresponding to the Greek comparative *μέζωρ -ορος* and the like. I conjecture that in early Sanskrit the nasal passed from *-vant-am* *-vant-as* to the nom. sing. in **-vās* (see § 127 p. 405), **agni-vās* becoming *agni-vās* (*-vān*), and thence passed on to the participles, first *vid-vās*, then *vid-vās-am* and so forth; it is possible also that *-vant-am* had a direct influence upon **-vās-am*.

And lastly, the *vant*-stems may have given rise to the later formation of the voc. sing. in *-van* instead of *-vas*, having first exchanged *-vas* for *-van* in their own system.

In Lithuanian we find *vilk-ės* beside *dā-vės*, Pruss. *laipinn-ons* beside *klanti-wuns*, O.C.Sl. *vlūk-ū* beside *da-vū*, similarly gen. *vilk-us-io* beside *dā-vus-io*, *vlūk-ūša* beside *da-vūša*. In the nom. sing. the consistent absence of *v* after the consonant may have been caused by the fact that this sound regularly disappeared after certain consonants (cp. I § 184 p. 160 f.)²); the form which the suffix took in these instances was then applied generally to all tense-stems that ended in a consonant. At the same time the absence of the *v* in the other cases (*vilk-us-io* *vlūk-ūša* etc.) may have helped in forming the type. In the case of Slavonic however, we have further to take into account the possibility that there existed a nom. in **-us* (cp. Skr. *vid-ūṣ* etc. p. 440): *-ū* may be the regular phonetic representative of this ending. Lith. *-vens -ens*, *-vės -ės* replaced **-vēs *-ēs* through the influence of the present form *-ans -as* (*-ens* probably arose first, on the model of *-ans*, then *-vens* likewise); and a further consequence was that the neuter of the preterite in *-vę -ę* was formed upon the neuter of the present in *-a*. The Prussian *-wuns -ons* (*-uns -ons*) is a similar analogical formation; but it remains an open question whether the original

1) This association prevented the development of forms parallel to the loc. pl. *mahiyassu* and the instr. pl. *māhiyōbhiś* (see I § 557 Rem. p. 412, § 591 Rem. 2 p. 448).

2) In l. 18 of this page read 'after initial *s-* (*sz-*)' instead of 'before'.

form here was **-ues*, whose *e*-vowel, after the insertion of the nasal, became *o* (*u*) because of the preceding *u*-sound, or whether we should take Idg. **-uos* as our starting-point. In Slavonic we have masc. *-vũ -ũ* and neut. *-vũ -ũ*, just as in the present *-y* serves for both genders: as here *-y* passed from the masc. to the neut., so probably did *-vũ -ũ* in the preterite, the old neuter form falling out of use. If now *-ũ* = Idg. **-us*, it is a very natural suggestion that *-vũ* arose from a contamination of **-us* and **-ues* or **-uos*. But *-vũ* may have arisen in the same way as *-ĩ* (p. 429 f.): if so, there once existed side by side masc. *-vũ* = Idg. **-uos* and neut. **-vo* = Idg. **-uos*; **-vo* produced the masc. *-vũ* and was itself afterwards driven out of the field by *-vũ*. Gen. Lith. *dã-vus-io* O.C.Sl. *da-vũša* owe their *v* to the nom. (we should expect **d-us-io* **d-ũša*); Lith. *bãvusio* O.C.Sl. *byvũša* (beside *bũ-ves by-vũ*) are to be analysed as *bãv-usio byv-ũša* (instead of **bãv-ũša*), and thus these forms may have helped to give currency to the formations *dãvusio* etc. O.C.Sl. *chvalĩ chvalĩša* for **chvaljũ* **chvaljũša* (later *chvalivũ chvalivũša*) follow the type of the non-derivative verbs, cp. part. pret. pass. *chvaljenũ* like *vedenũ* (Wiedemann, Beitr. zur altbulg. Conjug. 134).

It is to be hoped that the explanations advanced here and on p. 429 ff. will not meet with the fate which has befallen J. Schmidt's attempt to elucidate the same difficult theme, and be regarded as 'final'. We are still, I think, some distance, perhaps a very considerable distance, from a final conclusion.

Idg. Skr. *ri-rik-vás-* Gr. *λε-λοιπ-ώς* Lith. *lĩk-es*, *✓leiq-* 'leave at liberty, leave'. Skr. *bu-bhuj-vás-* Gr. *πε-γευ-ώς* Lith. *bũg-es*, *✓bheug-* 'bend, (bend aside, extricate oneself, fear)'. Skr. *ba-bhũ-vás-* Gr. *πε-γν-ώς* Lith. *bũ-ves* O.C.Sl. *by-vũ*, *✓bheũ-* 'become'. Skr. *ma-mŗ-vás-* (*ma-mŗ-ũš-*) Lith. *mĩr-es* O.C.Sl. *mĩr-ũ*, *✓mer-* 'die'. Skr. *adi-vás-* (*ad-ũš-*) Gr. *εδ-ηδ-ώς* Lith. *ẽd-es* O.C.Sl. *jad-ũ*, *✓ed-* 'eat, devour'. Skr. *da-d-vás-* *da-di-vás-* *da-dã-vás-* (*da-d-ũš-*) Lith. *dã-ves* O.C.Sl. *da-vũ*, *✓dõ-* 'give'. Skr. *ta-sthi-vás-* (*ta-sth-ũš-*) Gr. *ε-στα-ώς* *ε-στώς*, *ε-στη-ώς* *ε-σσεώς* O.C.Sl. *sta-vũ*, *✓stã-* 'stand'.

Aryan. Skr. *ci-kit-vás-* *ci-kit-ũš-* Avest. *ci-kiþ-wah-* *ci-ciþuš-* (a re-formation in place of **cicit-ũš-*) beside Skr. perf. *ci-kẽt-a* 'he knows, discerns', cp. *ci-kit-* instead of *ci-cit-*, I § 448 Rem. p. 333. Skr. *bu-budh-vás-* *bu-budh-ũš-* beside *bu-bõdh-a* 'he awoke, noticed, marked': Lith. *pa-bũdẽs* 'awake', *✓bheũdh-*. Skr. *ũci-vás-* *ũci-ũš-* Avest. *vaok-ũš-* beside Skr. *u-vãc-a* *va-vãc-a* 'he spoke', *✓ueq-*. Skr. *va-vŗt-vás-* *va-vŗt-ũš-* beside *va-vãrt-a* 'he turned': Lith. *viŗt-es* 'overturned, having altered oneself', *✓uert-*. Avest. *vã-ver'z-ũš-* from *var'z-* 'perform, execute':

Gr. *ἐ-οργ-ώς, √ *uerg-*. Skr. *ca-kr-váš-* *ca-kr-úš-* beside *ca-kṛ-a* 'he made', √ *ger-*. Skr. *va-van-vás-* *va-vn-úš-* Avest. *va-van-vah-* *vaon-uš-* from Ar. *van-* 'gain', ground-form **ue-uṇ-ues-* **ue-uṇ-us-* (I § 229 p. 195). Skr. *ja-ghan-vás-* (later also *ja-ghni-vás-*) *ja-ghn-úš-* from *han-* 'strike, slay': Lith. *gìn-ęs* 'having driven (cattle)' O.C.Sl. *žin-ŭ* 'having cut off, harvested', √ *ghen-*. Skr. *ja-gan-vás-* (later also *ja-gmi-vás-*) *ja-gm-úš-* Avest. *ja-ym-uš-* (cp. I § 199 Rem. 2 p. 168, § 225 p. 192 f.): Gr. *βε-βα-ώς* no doubt instead of **βεβαν-(f)ως* (cp. the last-mentioned passage, and the Greek section below), Lith. *gim-ęs* 'having come into the world' (I § 249 p. 204), √ *gem-*. Skr. *bi-bhī-vás-* *bi-bhy-úš-* Avest. *bi-wi-vah-* beside Skr. *bi-bhāy-a* 'he was afraid', √ *bheṣ-*. Skr. *śu-śru-vás-* *śu-śruv-úš-* beside *śu-śrāv-a* 'he heard', √ *kley-*. Skr. *pa-pti-vás-* *pa-pt-úš-* beside *pa-pāt-a* 'he shot through the air, flew': Gr. *πεπτώς* for **πε-πτα-ώς* (*πε-πτηώς* *πε-πτιώς* are later formations following the perfect of *στᾶ*), √ *pet-*. Skr. *sēdi-vás-* *sēd-úš-* beside *sa-sād-a* 'sat', *sēd-* = Avest. *hazd-* I § 591 p. 447: Lith. *sēd-ęs* 'having seated oneself', √ *sed-*. Avest. *ta-ḥk-uš-* beside *tac-* 'run' (I § 473 p. 349): O.C.Sl. *tek-ŭ* 'having run, flowed'. Skr. *da-d-vás-* (*da-di-vás-* *da-dā-vás-*) *da-d-úš-* Avest. *da-ḍ-vah-* *da-ḍ-uš-* 'δεδω-κώς': Lith. *dā-vęs* O.C.Sl. *da-vŭ*, √ *dō-* 'give'. Skr. *ja-jñi-vás-* *ja-jñ-úš-* and *jān-úš-* beside *ja-jñāu* 'he knew' pres. *jā-nā-ti*: O.C.Sl. *zna-vŭ* beside *zna-ti* 'to know'.

Greek. *δει-ώς* *δει-νῖα* *ιδ-νῖα* beside *οἶδ-ε* 'he knows': Skr. *vid-vás-* *vid-úš-* beside *vēd-a* 'he knows', √ *ueṣd-*; cp. also Goth. *veit-vōþ-s* 'witness' p. 440. *εἰκ-ώς* *οἶκ-ώς* *ἐ-οικ-ώς* beside *ἐ-οικ-ε* *οἶκ-ε* 'it is like, resembles, appears', *τε-τευχ-ώς* 'prepared, made ready' beside *τέ-τυκ-ται* *τε-τενύχ-αται*. *ἐληλονθ-ώς* *εἰληλονθ-ώς* beside *εἰλήλουθ-ε* *ἀπ-ελήλουθ-ε* 'is come'. *πε-πονθ-ώς* *πε-παθ-νῖα* beside *πέ-πονθ-ε* 'he has suffered', *πενθ-*. *τε-τροφ-ώς* *τε-τραφ-ώς* beside *τέ-τροφ-ε*, *τέ-τραφ-ε*, pres. *τρέπω* 'I turn'. *δε-δορκ-ώς* beside *δέ-δορκ-ε*, pres. *δέρκ-ο-μαι* 'I see': Skr. *da-dṛś-vás-* *da-dṛś-úš-*, √ *derk-* 'see'. *πε-πορδ-ώς* beside *πί-πορδ-ε* 'pepedit': Lith. *pėrd-ęs* Lett. *pi'rd-is*, √ *perd-*. *δι-εφθορ-ώς* beside *δι-εφθορε*, pres. *δια-φθείρω* 'I destroy'. *γε-γον-ώς* beside *γέ-γον-ε* pl. *γέ-γα-μεν*, aor.

ἐ-γέν-ε-το 'arose, became'; the parallel form γε-γα-ώς γεγώς γε-γα-νῖα, like με-μα-ώς (✓ *men-*) and βε-βα-ώς (✓ *gem-*), was a new formation suggested by γέ-γα-μεν (μέ-μα-μεν βέ-βα-μεν) etc. and modelled upon ἐ-στα-ώς: ἐ-στα-μεν. δε-δι-ώς beside δέ-δι-μεν 'we feared' 1. sing. δέιδω i. e. δέδω for *δέ-δφο(ι)-α, ✓ *dh-ej-pe-φv-ώς*: Skr. *ba-bhā-vās-* etc., see p. 442 above. τε-τοκ-ώς beside ἔ-τεκ-ε 'he begat'. ἐ-στα-ώς ἐ-στώς and ἐ-στη-ώς ἐ-στεώς beside ἔ-στα-μεν 'we stand': Skr. *ta-sthi-vās-* etc., see p. 442 above. πε-πηγ-ώς beside πέ-πηγ-ε 'is fitted, fixed', ✓ *paḱ- paḡ-* στε-σθρ-ώς σε-σαρ-νῖα beside σαίρω 'I sweep'.

The suffix is sometimes found in derivative verbs, as Hom. κεχαρη-ώς beside κηχάρη-μαι (aor. ἐ-χάρ-ην, pres. χαίρω 'I rejoice'), βεβαρη-ώς 'gravatus' beside pres. βαρέω, Boeot. inscr. *Fe-Fṽkonο-μειόντων* = Att. *ὠκονομηκότων* beside οἰκονομέω 'I govern' (for -όντων instead of -ότων see below), all following the formation of τεθνη-ώς κε-κμη-ώς and the like. Cp. O.C.Sl. *želě-vŭ*.

It was further extended to the *x*-perfect: δεδωκ-ώς beside δέ-δωκ-ε 'has given', ἐ-στηκ-ώς beside ἔ-στηκ-ε 'stands', τεττιμηκ-ώς beside τε-τίμηκ-ε 'has honoured' and so forth.

The feminine forms in -εῖα -είας (see p. 440) appear in Doric dialects and in Attic: e. g. Heracl. ἐρρηγ-εῖα Ther. ἐστᾱκ-εῖα, Att. γεγον-εῖα.

It occurs in Homeric forms with -(f)ωτ- instead of -(f)οτς, whose ω was taken from the nom. sing. masc., e. g. πε-φv-ῶτ-α-, με-μα-ῶτ-ες -ῶτ-ος, τε-θνη-ῶτ-α. Cp. μήσ-τωρ-α formed on the pattern of μήσ-τωρ § 120 Rem. p. 380, § 122 p. 386.

These perfect participles, like the other forms of the perfect stem, were remodelled on the analogy of the presents in -ω in different dialects, especially in those of the Aeolic group: e. g. Lesb. πεπληρώκοντα εὐεργετήκοισαν, Thess. ἐν-οικο-δομεικόν-τεσσι, Boeot. *FeFṽkonο-μειόντων* (see above), Hom. κελήγοντες, Hesiod. ἐρρήγοντι, Pind. περρήκοντας, Delph. τετελενακούςας. Here it was a purely syntactic consideration, viz. the similarity of meaning (the Greek Perfect being a Present in point of time) that suggested this transfer to the system of the present-inflexion; the new feminine formations, on the other hand, such as Hom.

Att. *βεβῶσα*, Att. *ἑστῶσα τεθιῶσα*, Herod. *ἑστειῶσα*, with precisely the same endings as the pres. part. *τιμῶσα* and the like, were in part also determined by the contracted forms in *-ωτ-* (*ἑστῶτ-* for *ἑστῶοτ-*, *τεθνεῶτ-* for *τεθνεῶοτ-*) of the corresponding masc. and neut.; the *-ω-* of these feminines in *-ῶσα* was taken from the corresponding masc. and neut., the *-ου* from the pres. part. fem. I do not believe that *ἑστῶσα* is derived from a hypothetical **ἑστάουσα*.

Italic. An attempt has been made to trace this suffix in Lat. *cadaver* and *papaver*, the former being regarded as 'that which has fallen' (*cadō cada-bundu-s*, cp. *πτῶμα* 'corpse') or 'that which has been destroyed' (*cadamitas cassu-s* Skr. *kad-*, see Bersu Die Gutturalen und ihre Verbindung mit *v* im Lat. p. 170), the latter as 'that which is inflated' (*papula pampinu-s*), and both compared with participles like Gr. *κεκαφηώς* (Curtius, Das Verb der gr. Spr. II² 250). The suffix has also been traced in Lat. perfects like *sē-vī strā-vī amā-vī*, which have been regarded as examples of a crystallised periphrastic formation of the same kind as the Skr. fut. *datāsmi* 'I will give' ('dator sum, daturus sum') (Curtius, Ber. d. sächs. Ges. d. Wiss., 1855, p. 421 ff., Schulze, Kuhn's Ztschr. XXVIII 266 ff.). Lastly, the same suggestion has been made for Osc. *sipus* 'sciens' (*ī*), as compared with a Lat. perf. **sēp-ī* equivalent to *sapui* (J. Schmidt, XXVI 372 ff.); its termination might have come from either *ibid.* Idg. **-us* or **-uōs* (cp. p. 440).

This suggestion is most plausible as applied to *sip-us*, least as applied to *sē-vī*.

In Germanic only a few isolated examples have survived. Goth. *bēr-us-jōs* pl. m. 'parents' ('they that have brought forth'), *✓ bher-*, cp. indic. 1. pl. *bērum* 1. sing. *bar*. A.S. *ēzesa ēzsa* O.Sax. *ēcso* m. 'owner' = Goth. **āig-us-ja* m., beside Goth. *āigan* 'to have, possess'. The suffix is *-us-īo-* as in the Gr. pl. *ιδῶοι*, gen. sing. Lith. *vilkusio* O.C.Sl. *vlūkūša* (p. 440).

Balto-Slavonic. Lith. *geid-ēs* beside *geidžiū* 'I long for, desire', O.C.Sl. *žid-ū* beside *žida žida* 'I wait, await'. O.C.Sl. *čit-ū* beside *čit-a* 'I reckon, esteem, honour'. Lith. *kiūt-ēs* beside

kertù 'I hew, strike', O.C.Sl. *črit-ũ* beside *črūt-q* 'I cut': Skr. *ca-kṛt-vás-* beside *kṛnt-á-ti* 'cuts, splits', √ *qert-*. Lith. *mĩž-ęs* beside *mėlžũ* 'I milk', O.C.Sl. *mlüz-ũ* beside *mlūza* 'I milk', √ *melg-*. Lith. *liñk-ęs* beside *linkstũ* 'I bend myself', *leñk-ęs* beside *lenkiũ* 'I bend', O.C.Sl. *lęk-ũ* beside *lęka* 'I bend'. Lith. *mĩn-ęs* beside *menũ* 'I bethink me': Avest. *ma-man-uš* (p. 440) √ *men-*. Lith. *pĩn-ęs* beside *pinũ* 'I plait', O.C.Sl. *pĩn-ũ* beside *pĩna* 'I stretch, hang', √ *(s)pen-*. Lith. *vėm-ęs* beside *vemiũ* 'I vomit' Skr. *vėmi-vás-* beside Skr. *va-vdm-a* 'he vomited', √ *uem-*. Lith. *mĩr-ęs* O.C.Sl. *mĩr-ũ* 'dead', see p. 442 above. Lith. *vėr-ęs* beside *veriũ* 'I open or shut the door' (Pruss. *et-wiriuns*) O.C.Sl. *vĩr-ũ* beside *vĩra* 'I open or shut the door', √ *uer-*. Lith. *gėr-ęs* beside *geriũ* 'I drink' O.C.Sl. *žĩr-ũ* beside *žĩra* 'I swallow', √ *ger-*. O.C.Sl. *stĩr-ũ* and *pro-strĩvũ* (originally **stĩr-us-* : **stĩ-ues-*) beside *stĩra* 'I stretch', √ *ster-*. Lith. *vėž-ęs* O.C.Sl. *vez-ũ* beside *vežũ veza* 'veho': Skr. *ũhi-vás- ũh-ũš-* beside indic. *u-váh-a* 'vexit', √ *uegh-*. Lith. *dėg-ęs* O.C.Sl. *žeg-ũ* beside *degũ žega* 'I burn'. O.C.Sl. *pek-ũ* beside *pek-q* 'I bake': Skr. *pēci-vás- pēc-ũš-* beside indic. *pa-pāc-a* 'coxit', √ *peq-*. Lith. *sėd-ęs* beside *sėdu* 'I sit': Skr. *sēdi-vás-*, see p. 443 above. Lith. *dā-vęs* O.C.Sl. *da-vũ* beside *dũ-ti da-ti* 'to give': Skr. *da-d-vás-*, see p. 443 above. O.C.Sl. *dě-vũ* beside *dě-ti* 'to lay', √ *dhē-*; Lith. *dėjės dėjusio*, following the pret. *dėjau*, inf. *dě-ti* 'to lay'. O.C.Sl. *sta-vũ* beside *sta-ti* 'to place oneself', see p. 442 above, and compar. the Pruss. *po-stāuns* i. e. *-stāouns* (cp. below, *klantiwuns* beside *klantiuns*); Lith. *stójės stójusio*, following the pret. *stójau*, inf. *stó-ti* 'to place oneself, step'. Lith. *saus-ęs* Lett. *sus-is* beside Lith. *saustiũ* 'I become dry', O.C.Sl. *sũch-ũ* beside *sũchna* 'I become dry': Skr. *šu-šus-vás-* beside indic. *šu-šós-a* 'he became dry', √ *says-* (cp. I § 557 p. 413).

Just as the Lithuanian participles *dėjės* and *stójės* follow the preterite in *-jau*, so do the forms *mātes mācziusio* (: pret. *macziaũ* pres. *mataũ* inf. *matý-ti* 'to see'), *válges válgiusio* (: pret. *válgiau* pres. *válgau* inf. *valgy-ti* 'to eat'); where it should be observed, that *mātes válgės*, earlier *mādens válgens*, according to the regular phonetic laws must be referred to **matjens *valgjens*

(I § 147 p. 131). Further examples of the same sort are *penējēs* beside *penējau* 'I nourished, fattened', *jēskójēs* beside *jēskójau* 'I sought'. On the other hand we find *u* in the Pruss. *klanti-iouns* 'having condemned' (*klanti-t* 'to condemn'), less correctly written *klantiūns*; and similarly *signāuns* (*signā-t* 'to bless'), *teikūuns* (*teiku-t* 'to form, make') as well as the form *postāuns* quoted above must have had the termination *-uuns*.

O.C.Sl. *buždī* for **būd-jū* beside pres. *bužda* inf. *budi-ti* 'to wake' *chvaljī* beside pres. *chvalja* inf. *chvali-ti* 'to praise' etc., are like Lith. *mātes māczyusio*; later we have *-ivū*, as *budivū chvalivū*. Cp. p. 442. *dēla-vū* beside *dēla-jā dēla-ti* 'to work'. *želē-vū* beside *želēja želē-ti* 'wish'.

MEANING CONVEYED BY THE SUFFIXES: NOUNS CLASSIFIED FROM THIS POINT OF VIEW.

§ 137. In the foregoing account of the formation of noun-stems (§ 59—136) our classification has been based upon the phonetic character of the formative suffixes. It will be useful to re-arrange the facts of this chapter in the history of noun-formation from the point of view of their meaning.

Considered in this respect the different suffixes have many points in common and are connected in many ways; all of which can be exhibited more clearly and studied more directly by a fresh survey.

The original meaning of the proethnic Indo-Germanic formative suffixes is unknown; accordingly the method by which we are to consider them must be based upon the logical categories which they generally serve to denote. We need not concern ourselves with the question whether any given suffix in its very oldest usage was, or was not, capable of fully expressing the idea which it helps to represent in those periods of the history of language which we are able to observe.

It is only a small proportion of the formative suffixes in which we can trace from the beginning a simple and clearly

defined function; as, for example, in the comparative *-tero-*. Most of them serve several purposes, and it is often impossible to reconcile the meanings of a particular suffix. It must be admitted, however, that it is far from certain whether in such cases we have really to recognise only one formative element. The same group of sounds may have more than one etymological origin, e. g. *-mo-* as a suffix of comparison (Lat. *summu-s* for **sup-mo-*) may have a different origin from *-mo-* in substantives like Lat. *fū-mu-s ani-mu-s* (§ 72 p. 170 ff.).

In the following sections there is no need to do more than emphasise the most important points. I have not attempted to make the survey absolutely comprehensive from any point of view.

A d j e c t i v e s .

§ 138. Variation according to gender (masc. neut. fem.), and the formation of derivatives to denote comparison (degrees of comparison), are usually assigned as the chief characteristics of adjectives as such in the Indo-Germanic languages. However these types of inflexion are all found in substantives also, so that no hard and fast line can be drawn between the two groups.

The suffixes which appear in adjectives in the proethnic and later periods are all found in substantives as well. The question then arises, whether the substantival or the adjectival use is the older. In some cases the latter is undoubtedly earlier, e. g. Lat. *caprina* in *pellis caprina* and the like, compared with *caprina* 'goat's flesh' (§ 154). In another group of forms, however, the substantival meaning seems to have been the older e. g. Skr. *māhas-* 'greatness' compared with *mahás-* 'great', Gr. *ψεῦδεις* 'deceit' compared with *ψευδέος* 'deceitful' (§ 155). In other instances again, no distinction is possible *a priori*, e. g. in Avest. *per'na-* f. 'plena' and 'plenitudo, plenitas' (§ 158).

Many Indo-Germanic adjectival suffixes have no definite meaning to distinguish their own class of adjectives from others. The most sharply defined are those with a comparative meaning. These we will consider first.

§ 139. Adjectives with Comparative meaning. The elements of meaning which are really distinctive of this class are first the idea of contrast by comparison, and secondly the idea that what is predicated by the adjective is only true in a relative and limited sense.

-io- in **al-io-s* 'alius', **medh-io-s* 'medius' **me-io-s* 'meus' and the like simply helps to express the idea of contrast by comparison, which is given by the root itself. See § 63, 3 p. 132 f. It may be conjectured that *-io-* had etymologically nothing to do with the notion of comparison, but that in the earliest or some of the earliest of these adjectives the suffix came to participate in this idea, which was really expressed by the root of the word (cp. § 57 p. 104 f.); and that it was then used independently in other words with the same force.

-ies- (*-ien-*) which is probably an extension of *-io-*, expresses primarily contrast by comparison in the widest sense. The adjectives formed with this suffix came into close connexion with other adjectives of the same root and the same root-meaning, where the idea of relativity was wanting; hence they were applied to express not so much absolute contrast (as that of 'new': 'old') as limited contrast ('new in comparison with something else which must also be called new') A further limitation of meaning appeared with the *to* derivative *-is-to-* (§ 81 p. 242 ff.). A distinction in usage sprang up between *-ies-* (*-is-*) and *-is-to-*, which is analogous to that between *-ero-* *-tero-* and *-mo-* (*-mmo-*) *-tmmo-*: whilst *-is-to-* denotes comparison with several other objects, *-ies-* (*-is-*) is confined to comparison with one other. E. g. comparative Skr. *lāgh-tyas-* Avest. *renj-yah-* Gr. *ἐλάσσων* and superlative Skr. *lāgh-iṣ-ṭha-s* Gr. *ἐλάχις-το-ς* beside Skr. *lāgh-ū-ṣ* Gr. *ἐλαχ-ί-ς* ('agile, small, little'). In formations like Gr. *ἀρι-στο-τερό-ς* 'left', as contrasted with 'right' (§ 75 p. 190 ff.), the notion of contrast with a single other thing is still further expressed by the addition of *-tero-*; for this suffix, as we shall see, was especially used in the Indo-Germanic period and later to express ideas which are contrasted absolutely. See § 135 p. 427 ff.

-ero- and *-tero-* seem to have been first used only in words expressing conceptions of space and time, and in certain pronouns of a different meaning. In these the comparison contains only one notion, that of strong contrast, like 'below': 'above'. **adh-ero-* 'lower': Skr. *ádharma-*, O.H.G. *undaro*; **en-tero-* 'inner': Skr. *ántara-*, Armen. *ender-k*, Gr. *έντερο-ν*, Lat. *inter-ior*, O.C.Sl. *jětro*. **qo-tero-* 'which (of two)?': Skr. *katará-* Gr. *πότερο-ς*, Umbr. *podruh-pei*, Goth. *hvaþar*, Lith. *katrà-s*. Add certain examples found in single languages, as Armen. *mer* O.Ir. *ar n-* Goth. *unsar* 'our', Gr. *ἡμέ-τερο-ς* Lat. *nos-ter* 'our' (contrasted with 'your'), Gr. *ἀγρό-τερο-ς* 'dwelling in the open fields, wild', thus having the sense of *ἄγριο-ς*, but originally distinguished from it by the reference to its opposite *ἄστυ*. In Aryan and Greek *-tero-* then became a common comparative suffix for adjectives of any formation and meaning, like Skr. *amá-tara-* Gr. *ώμό-τερο-ς* compared with *amá- ώμό-ς* 'raw', and here there was comparison no longer with the absolutely opposite idea, but with the notion expressed by the so-called positive; probably this process was completed partly through association with the other group of comparatives formed with *-ies-*, such as Skr. *svád-tyas-* Gr. *ήδ-ίω* (acc. sing.). In the older stratum of comparatives, like **en-tero-* **ni-tero-*, it is seldom that the idea of relative contrast appears, as in Gr. *πρότερον ἢ* 'before that' Osc. *pruter-pan* 'prius quam'. See § 75 p. 188 ff.

-to- *-is-to-* *-mo-* (*-ημο-*) *-t-ημο-*. *-to-* and *-mo-* are found first in numerals, where they were used to express position in a numerical series, e. g. **dekēnto-* 'decimus': Gr. *δέκατο-ς* Goth. *taihunda* Lith. *desziimta-s* O.C.Sl. *desetiŭ*, **septmo-* **septημο-* 'septimus': Skr. *saptamá-* Gr. *ἑβδομο-ς* Lat. *septimu-s* O.Ir. *sechtm-ad* Lith. *sėkma-s* O.C.Sl. *sedmy-jŭ*. Thus these suffixes were suited to set one particular idea in comparison with several others separately. Hence *-is-to-* was formed beside *-ies-* *-is-*, to express comparison with a number of objects, cp. e. g. Gr. *μέγιστος ἐγὼ ὑμῶν* 'I am greater than any one of you' (*μελίων ἐγὼ ὑμῶν* 'I am greater than you', *ὑμεῖς* being regarded as a single notion), *πόλεμον ἀξιολογώτατον τῶν προγεγενημένων*

'more remarkable than any one of the preceding wars' (Thucyd I 1). *-mo-* passed from the numerals to those stems which expressed ideas of space and time and contained the suffix of contrast *-ero-*, forming either (in contrast to *-ero-*) the true superlative, as **up-mo- *up-ḡmo-* 'uppermost, highest' (Skr. *upamá-* Lat. *summu-s*) beside **upero-*, or, as in Gothic, a general expression of comparison, e. g. Phil. 2, 3 *sis aúhuman* 'se superiorem' (from which was derived the normal superlative *aúhum-ist-s*). In the same way, *-ṡmo-* ranged itself beside *-tero-*, and in Aryan it proved quite as fertile a suffix. See § 72 p. 166 ff., § 73 p. 177 ff., § 81 p. 242 ff.

In Lettish *-aka-* became the usual suffix of comparison; *sa'ld-ák-s* 'sweeter'. See § 89 p. 273 f.

§ 140. Verbal Adjectives. Under this head I include all such adjectives as have a more or less participial character, cp. § 144. Here we may make several subdivisions.

1. Forms with Active Meaning.

-nt-. **bhero-nt-* 'bearing': Skr. *bhārant-* Gr. *φέρων* Lat. *ferēns* Goth. *batrand-s* O.C.Sl. *bery*. See § 126 p. 396 ff.

-mes-, with the implied idea of a completed action (cp. 3 below). Skr. *ririk-vás-* Gr. *λελοιπ-ώς* Lith. *lik-ęs* 'having let free, left'. Goth. *bēr-us-jōs* 'parents' ('those who have brought us into the world'). See § 136 p. 438 ff.

Other forms, found in single languages, are: Skr. *-vant-*, in *kytá-vant-* 'factum habens, having done', see § 127 p. 406. Slav. *-lo-* in *bi-lŭ* 'having smitten', see § 76 p. 212 ff.

2. Forms with Medial and Passive Meaning.

-mno- -meno- -mono- had from the earliest period the same meaning as the medial personal-endings. Skr. *yāja-māna-* Avest. *yaza-mna-* Gr. *ἀζό-μενο-ς* partic. of *yāja-tē yazai-tē āzetai* 'he honours'. See § 71 p. 163 ff.

-mo- has the same meaning as *-mno-* in Umbro-Samnitic and Balto-Slavonic. Umbr. *persnih-mu* 'precamino' Osc. *censa-mu-r* 'censemino', Lith. *vėža-ma-s* 'being carried, fit to be carried'. See § 72 p. 166.

Ar. *-āna-* is used as a medio-passive suffix, as in Skr.

dúh-ana-s dúgh-ana-s, beside the act. indic. *dōgdhi* 'he milks'. See § 67 p. 151 f.

3. Forms expressing completed action and hence a state, chiefly passive.

-to-. **klā-tó*- 'heard, famed': Skr. *śrutá-* Gr. *κλυτός* Lat. *in-clutu-s* O.Ir. *cloth* O.H.G. *Hlot-hari* ('Lothair') *hlut* ('loud'). **gm-tó-*: Skr. *gatá-* 'gone, gone forth, come' *á-gata-* 'untrodden', Gr. *πατός* 'trodden, passable', Lat. *circum-ventu-s*. See § 79 p. 218 ff.

-no- -*yno-* and in some of the languages also -*eno-on o-*. **pl̥-nó-* **pl̥-nó-* 'filled, full': Skr. *pūrṇá-* Avest. *per'na-* O.Ir. *lan* Goth. *full-s* Lith. *pilna-s* O.C.Sl. *plünü*; Gr. *στυγρός* 'hated'; Lith. *kil-na-s* 'exalted'. Goth. *fulg-in-s* 'hidden'; O.C.Sl. *vez-enü* 'carried'. Goth. *vaúrþ-an-s* O.H.G. *gi-wort-an* 'become'. See § 65 p. 138 ff.

-*yes-*, with active sense, see 1 p. 451.

4. Forms expressing the feasibility, possibility, or necessity of the action; passive.

-io- -*io-*. Skr. *yāj-ya-s* Gr. *ᾗ-ιος* 'venerandus'. Skr. *dṛś-ya-s* *dārś-īya-s* 'visible, worth seeing'. Gr. *στυγ-ιος* 'abominable, detested'. Lat. *ex-im-iu-s* 'eximendus, distinguished'. Goth. *brūk-s* (stem *brūk-ja-*) O.H.G. *prūchi* 'useful'. See § 63, 1 p. 123 ff.

-*tno-* -*tno-*. Lat. *dandu-s* 'who is to be given'. Lith. *sūk-tina-s* 'torquendus'. See § 69, 2 p. 161 ff.

Further the words formed with -to- (3) seem to have sometimes implied this secondary meaning even in Indo-Germanic, primarily however in negative usages. It is found especially in Greek, as *λυτός* 'that may be freed or loosed'. See § 79, 1 p. 220.

Forms peculiar to single groups of languages: Skr. -*tva-*, *kār-tva-s* 'faciendus', see § 61 p. 116. Skr. -*tav-ya-*, *kar-tavyā-s* 'faciendus' see § 63 p. 126 f. Gr. -*τεο-* clearly for -*τεφο-*, *διωκ-τέος* 'who is to be pursued', see § 64 p. 135 with Rem. 1. Occasionally this meaning can be seen in the *no-* adjectives (3), as Gr. *ἀγρός* 'venerandus, deserving of honour, holy', *σμερδός*

'timendus, terrible', *ἐδανό-ς* 'eatable'; similarly in Lith. *-ma-* (2), as *vėža-ma-s* 'fit to be carried, transportable', *sūka-ma-s* 'capable of being twisted'.

§ 141. Denominative Adjectives. The relation to the noun from which they are derived may be any one of many different kinds: the word may mean 'made of the same material', 'belonging to the same species', 'derived from', 'possessing', 'being provided with' etc.

*-ino- -īno- -a*ino-*. This is especially used with the meaning 'made or consisting of', 'arising from', 'belonging to the same kind as' that which the original noun expresses. Gr. *φηγ-ινο-ς* 'beechen' (*φηγός-ς*). Lith. *duks-ina-s* 'golden' (*duksa-s*). Avest. *bawr-aēni-š* Lith. *bebr-in-i-s* Lat. *fibr-īnu-s* 'coming from the beaver' (e. g. fur). Skr. *sat-īnā-s* (*sánt-*) Gr. *ἀλγθ-ινο-ς* (*ἀλγθής*) O.H.G. *wār-īn (wār)* 'truthful'. See § 68 p. 155 ff.

-uent-. The chief meaning is 'provided with' that which the original word denotes; more rarely it means, 'of the same kind'. Skr. *viśā-vant-* 'poisoned, poisonous' Lat. *vīrōsu-s* 'poisonous' (*viśā-m vīru-s* 'poison'). Gr. *οινό-εις* 'made from or with wine', Lat. *vīnōsu-s* 'full of wine, like wine' (*οἶνο-ς vīnu-m* 'wine'). Skr. *putrá-vant-* 'having a son or sons' (*putrá-s* 'son'). Gr. *χαρί-εις* 'graceful, gracious' (*χάρι-ς* 'grace'). Lat. *verbōsu-s* 'full of words, diffuse' (*verbu-m* 'word'). See § 127 p. 404 ff.

-tno- -tyno-. This is found in adjectives formed from temporal adverbs. Skr. *pra-tnā-s* 'ancient, old', *nū-tna-s nū-tana-s* 'present'. Lat. *diā-tinu-s*, *crās-tinu-s*, Lith. *dabar-tina-s* 'present'. See § 69, 1 p. 160.

-go- occurs in adjectives derived from adverbs, which chiefly express ideas of space. Skr. *nī-ca-* 'low, going downwards', O.C.Sl. *ni-c-ŕ* 'pronus'. Lat. *reci-procu-s* orig. 'turned backwards and forwards'. Besides these, *-go-* and also *-iqo-* are found in adjectives formed from substantives; the relation to the original word varies very widely. Skr. *sūci-ka-s* 'pricking' (*sūcī-* 'needle'), *sīndhu-ka-s* 'arising from the Indus' (*sīndhu-ś*), Lat. *amni-cu-s* (*amni-s*), O.Ir. *sūile-ch* 'oculus' (*sūil* n. 'oculus'), Goth. *stáina-h-s* O.H.G. *steina-g* 'stony' (Goth. *stáin-s* O.H.G. *stein* 'stone'). Skr.

paryāy-ikā-s 'strophic' (*paryāyā-s* 'strophe'), Gr. *νυμφ-ικός* 'bridal' (*νύμφη* 'bride'), Lat. *bell-icu-s* (*bellu-m*), O.Ir. *cuimn-ech* 'mindful' (*cuman* 'remembrance, memory'), O.H.G. *wuot-ig* 'furious' (*wuot* 'fury'). See § 86 p. 255 ff., § 87 p. 260 ff.

The following examples of the proethnic methods of forming adjectives will further serve to shew how widely the relation of the derived to the original word may vary in different cases.

-iō- -iō-. **pōtr-iō-s* 'relating to one's father, fatherly' (**pōtēr-* 'father'): Skr. *pītriya-s* Gr. *πάτριος* Lat. *patriu-s*. Skr. *uśas-ya-s* 'dedicated to the dawn' Gr. *ῥῶϊος* 'early, eastern' (*uśās-ῥῶς* 'early light, dawn'). Skr. *nāv-īya-s* 'navigable', Gr. *νήιος* 'belonging to a ship, consisting of ships' (*nāv- νη(F)-* 'ship'). The adjectival usage is seen with special clearness in compounds like Gr. *ὁμο-πάτερ-ιος* O.Icel. *sam-feðr* 'having the same father' compared with the Gr. *ὁμο-πάτωρ* O.Pers. *hama-pitar-*, with the same meaning. See § 63, 2 p. 125 ff.

-no-. Skr. *strāṇ-na-s* 'feminine' (*strī-* 'woman'). Gr. *ἀλγεινός* 'paining, painful' (*ἄλγος* 'pain'), Hom. *ἐραυνός* 'lovely' (*ἔρως* 'love'). Lat. *aēnu-s* (*aes*), *ilīgnu-s* (*ilex*), *paternu-s* (*pater*). Skr. *purā-ṇā-* 'ancient' (*purā* 'earlier, before'): Umbr. Osc. **kom-no-* n. 'τὸ κοινόν' (*kom* 'cum'); Lith. *jáu-na-s* O.C.Sl. *ju-nū* 'young' (*jaū ju* 'already, by this time'). See § 66 p. 139 ff.

-ro-. Avest. *taṇ-ra* (cp. § 74 p. 182 footnote). Mid.Dutch *deemster* O.H.G. *dinstar* 'dark' Lith. *tāms-ra-s* 'bay-coloured' (Skr. *tāmas-* n. 'darkness'). Gr. *οἰζυ-ρός* 'mournful' (*οἰζύς* 'mourning'), *φοβε-ρός* 'fearful' (*φόβος* 'fear'), *δροσε-ρός* 'dewy' (*δρόσος* 'dew'). See § 74 p. 179 ff.

Particular uses in the separate groups of languages: Ar. *-a-* is especially frequent with the meaning of origin, as Skr. *sāvitṛ-ā-s* 'sprung from savitar', but also denoting every kind of relation, e. g. Skr. *mānas-ā-s* 'mental' (*mānas-* n. 'mind'), see § 60 p. 112 f. Ar. *-in-*: Skr. *cittin-* 'intelligent' (*cittī-* 'intelligence'), *parṇin-* Avest. *per'nin-* 'winged'. (Skr. *parṇā-m* 'wing'), O.Pers. *vīḥin-* 'belonging to a clan (*vīḥ-*)', see § 115 p. 357 f. Skr. *-nu- : rōciṣ-ṇū-* 'shining' (*rōciṣ-* 'light'), *kraviṣ-ṇū-* 'greedy of raw flesh' (*kraviṣ-*), see § 106 p. 320 f. Gr. *-ιμο-*, especially with the

meaning 'proportioned, suited to' that which the original word denotes; as νόμ-ιμο-ς 'suited to law, legal' (νόμος 'law'), see § 72, 3 p. 174. Gr. -συνο-: δουλό-συνο-ς 'subject, in service' (δούλο-ς 'servant'), see § 70 p. 163. Lat. -ali- -eli- -ili- -ūli: vītali-s, fidēli-s, hostīli-s, īdali-s, see § 98 p. 292. Kelt. -ako-, as O.Ir. marc-ach 'equester' (marc 'horse'), see § 89 p. 273. Germ. -iska- Lith. -iszka- O.C.Sl. -isko-: Goth. judaiv-isk-s 'Jewish' (Judaiv-s 'Jew') gud-isk-s 'divine' (gub 'god') O.H.G. ird-isc 'earthly' (erda 'earth'). Lith. prūs-iszka-s 'Prussian' (Prūsas 'a Prussian'), dēv-iszka-s 'divine' (dēvas 'God'), O.C.Sl. kŭnēž-iskŭ 'princely' (kŭnēgŭ 'prince'), dēt-iskŭ 'childish' (dēti f. pl. 'children'), see § 90 p. 276.

§ 142. Amongst denominative adjectives, those with a diminutival meaning form a special group: they denote what merely approximates to the description given by the original adjective, what is only similar to it. This meaning has often disappeared, so that the derived adjective has acquired the meaning of the word from which it was formed.

-lo-. Gr. παχυ-λό-ς 'somewhat thick' (παχύ-ς 'thick'), ἡδύ-λο-ς 'sweetish' (ἡδύ-ς 'sweet'). Skr. bahu-lá- beside bahú- 'thick'. See § 76 p. 198 ff.

-qo-. *sene-qo- orig. 'oldish', beside *seno- 'old': Skr. sanaká- Lat. senex (Goth. sineig-s). Skr. anīyas-ka- beside anīyas- 'thinner, finer', Lat. prīs-cu-s compared with prior, melius-c-ulu-s with melior, nigri-care with niger. *aṅghu-qo- orig. 'somewhat narrow', from *aṅghú- 'narrow': Armen. ancuk anjuk- O.C.Sl. qzŭkŭ 'narrow'. See § 84 p. 252 f., § 88 p. 262 ff. Cp. also Lith. -oka-, as saldóka-s 'sweetish, fairly sweet', see § 89 p. 273.

With this must perhaps be classed -go-, Skr. árba-ga- 'youthful' beside árba- 'small, young', O.H.G. alti-h 'old' O.Sax. lutti-c 'small'. See § 91 p. 276 f.

Compare the substantival diminutives, § 153.

§ 143. Adjectives formed with primary suffixes whose original function cannot be clearly defined.

-o- *neṃ-o-s 'new': Skr. náva-s, Gr. νέο-ς, Lat. novo-s, O.C.Sl.

novū. **saṃs-o-s*: Skr. *śō-ṣa-s* 'drying, parching', Gr. Ion. *αῖο-ς* Lith. *saūsa-s* O.C.Sl. *suchū* 'dry'. See § 60 p. 109 ff.

-*u*-. **grr-u-s* (**gr-u-s*): Skr. *gurú-ṣ* 'heavy, violent, hard', Gr. *βαρύ-ς* Lat. *grav-i-s* Goth. *kaúru-s* 'heavy'. **aŋgh-u-s* 'narrow': Skr. *qhú-ṣ* Armen. *ancu-k anju-k* Goth. *aggvu-s* O.C.Sl. *ažū-kū*. **syād-u-s* (**sud-u-s*) 'sweet, pleasant': Skr. *svādú-ṣ* Gr. *ῥόδύ-ς* Lat. *suāv-i-s* Goth. *sut-s*. See § 104 p. 312 ff.

-*ro*- -*rro*-. **rudh-ró-s* -*rro-s* 'red': Skr. *rudh-irá-s* Gr. *ῥοῦθ-ρός-ς* Lat. *rub-er* O.C.Sl. *rūd-rū*. **spə-ró-s*: Skr. *sphirá-s* 'fat, large, rich', Lat. *pro-sper*, O.C.Sl. *sporū* 'rich'. Skr. *cit-rá-s* 'shining, glorious, wonderful' O.H.G. *heit-ar* 'shining, clear, bright'. See § 74 p. 180 ff.

-*mo*-, excluding its participial function. (§ 140, 2). Avest. *gar-ma-* Lat. *for-mu-s* O.H.G. *war-m* 'warm', Armen. *jer-m* Gr. *ῥερ-μός-ς* 'warm'. Skr. *tū-tu-má-* Avest. *ta-ma-* 'strong'; Skr. *tig-má-* 'sharp', O.Ir. *lua-m* 'celox'. Goth. *rū-m-s* 'roomy'. Lith. *sziř-ma-s* 'gray'. See § 72, 3 p. 170 ff.

-*yo*-. **ǵh-yo-s* 'living': Skr. *jīvá-s* Lat. *vīvo-s* Mod.Cymr. *byw* Goth. *giu-s* Lith. *gyva-s* O.C.Sl. *živū*. **ǵdh-yo-s*: Skr. *ūrdhvá-s* Gr. *ὀρθό-ς* 'upright', Lat. *arduo-s* 'steep', O.Ir. *ard* 'high, great, noble'. Skr. *pūr-va-s* 'former, earlier', Gr. **πρω-φο*- in Dor. *πρᾶν* 'of yore', and other words, O.C.Sl. *prŭ-vy-jŭ* 'primus'. See § 64 p. 133 ff. In Latin and Germanic this suffix is used in a considerable number of adjectives denoting colour; which must be explained as due to the influence of a few examples (as **ǵhel-yo*-. Lat. *helvo-s* O.H.G. *gelo*), cp. § 57 p. 104 f.

The Relation of Adjectives to Participles.

§ 144. An adjective can be used to denote not only a quality inherent in the nature of a thing, but a transitory attribute, defined in regard to time according to the standpoint of the speaker; thus it comes to have somewhat of a verbal character, in other words it becomes a participle (*μετοχή*). Its verbal nature may include the power of governing a case, and of distinguishing different epochs of time, different kinds of action (momentary, continuous, inceptive), and Voice (*diathesis*, *genus verbi*). See § 140 p. 451 f.

In general the existence of adjectives as a class must necessarily precede that of participles. Where however we find purely nominal and purely participial values side by side in any one word, it would be incorrect to regard the former as in every case the older; for the participle may be again gradually reduced to a simple noun.

In many cases it is impossible to determine whether the nominal character of any given form dates from a time before the corresponding adjectival form had developed verbal uses, or whether a participle has been re-converted into a noun; e. g. in the case of Skr. *śá-śvant-* Gr. *ᾗ-πᾱς* 'complete, whole, every' Skr. *bṛhánt-* 'exalted, high, great' (§ 126 p. 397 f.), Skr. *vid-vás-* 'heedful, full of knowledge' compar. *vidúṣṭara- vidvattara-* (§ 136 p. 438), and in the Skr. and Lith. *-to*-participles constructed with an adnominal genitive, as Skr. *ánuspaṣṭō id bhavaty eṣō asya* 'conspectus est ille ab eo' (lit. 'eius'), Lith. *arklỹs suėstas viĩko* 'equus devoratus a lupo' (lit. 'lupi'), cp. also *Διός-δοτος* (§ 79 p. 218 ff.).

The former transition, from a purely nominal to a participial use, may be assumed with certainty in a few instances in the separate languages; e. g. in the Sanskrit participles with *-vant-*, like *kṛtá-vant-* 'having done' (§ 127 p. 406), and in the Slavonic participles in *-lo-*, as *bi-lũ* 'having smitten' (§ 76 p. 212). The connexion with the verbal system was established by the influence exerted on the meaning and usage of the adjectival forms in question by verbal forms derived from the same root, either those of the finite verb, or, sometimes, other participles previously formed. The process of transition was complete when analogous forms of the same kind could be made at will from other verbs in actual use.

Undoubted examples of the change from a participial to a purely nominal character are of frequent occurrence in later periods. Such are e. g. Gr. *ἐκών* 'willing' *μέλλον* 'future' Lat. *ē-loquēns sapiēns* Mod.H.G. *reizend* 'charming' (§ 126 p. 396 ff.), and the Gr. compar. *ἀσμεν-έστερο-ς* 'more glad' *ἐρριωμεν-έστερο-ς* 'stouter, stronger' (§ 71 p. 163 ff., § 75 p. 194).

Substantives denoting material things or persons (Concrete Substantives).

§ 145. Distinction of Sex. The *o*-suffixes served to indicate male creatures, e. g. **ekyo-s* 'horse, stallion': Skr. *áśva-s* Gr. ἵππο-ς Lat. *equo-s* O.Ir. *ech*. Female creatures were distinguished by the *a*-suffixes and by *-iē-* *-ī-*, e. g. **ekua-* 'female horse, mare': Skr. *áśvā* Lat. *equa* Lith. *aszva*; **ulq-iē-* **ulq-ī-* 'she-wolf': Skr. *vrkī* O.Icel. *ylg-r* O.H.G. *wulpa*. See § 59 ff. p. 107 ff., § 109 ff. p. 332 ff. It must, I think, be assumed, as I have already observed (in § 57 Rem. p. 104, cp. my essay on Gender there cited), that originally neither the *o*- and *a*-suffixes nor even *-iē-* (*-ī-*) had any connexion with animal sex; it is far more probable that in one or two words, perhaps in **gena-* 'woman' **māma-* 'mother' **s-tr-iē-* **s-tr-ī-* 'woman', the idea of female nature contained in the root of the word was imparted to the suffix, and that this led to the creation of such forms as **ekua-* beside **ekyo-*, **ulqiē-* beside **ulqo-*, to describe the female as distinct from the male animal. It was only through being contrasted with *-a-* and *-iē-* that the *o*-formation afterwards came to denote male sex. And it was still constantly and indeed primarily used to denote any given creature without reference to gender, e. g. ἵππο-ς 'horse'. See § 158.

§ 146. Names of kindred. The suffix most frequently used is *-er-* *-ter-*, as in **daiyér-* 'husband's brother-in-law' (Skr. *dēvár-* etc.), **syésor-* 'sister' (Skr. *svásar-* etc.), **pā-tér-* 'father' (Skr. *pítár-* etc.). See § 119 ff. p. 376 ff. This suffix in its origin had certainly nothing to do with the notion of kinship. From its accidental use in one or other of these nouns it was taken to form a series of words in which its function was to denote that idea. **pā-tér-* seems to have been originally a nomen agentis: 'protector'.

§ 147. Names of Animals. The use of *-bho-* in one or other of the words denoting animals, which had come down from the earliest times, led the Indians and the Greeks to employ

this suffix in other instances to form animal-names; e. g. Skr. *śarabhā-s* a fabulous eight-legged creature, Gr. *ἐλαφος* 'stag'. See § 78 p. 216 f.

In Germanic are found bird-names with Idg. *-go-*, as Goth. *ahak-s* 'dove' O.H.G. *habuh* 'hawk', which follows *cranuh* 'crane' (Armen. *krun-k*). See § 91 p. 277 and Kluge Nom. Stammb. p. 29.

§ 148. Names of parts of the body. *-en-* is found in a large number of proethnic names for parts of the body, though to begin with the suffix had no such meaning. It follows however that this use of it must have developed in the proethnic period, although we cannot tell which of the words containing it, e. g. Skr. *ūdh-an-* Gr. *οἰζ-α-(ρο-)* 'udder' Skr. *yak-ān-* Gr. *ἥπ-α-(ρο-)* 'liver', formed the type for the rest. It was still a living suffix with the same sense in the separate languages, e. g. Skr. *dōṣ-ān-* 'forearm', Avest. *nānāh-an-* 'nose'. See § 114 p. 344 ff.

§ 149. Nomina agentis.

-en-. Skr. *tākṣ-an-* Gr. *τέκτ-ων* 'carpenter, artificer'. Avest. *spas-an-* 'watchman', O.H.G. *speh-o* 'spy'. Lat. *ed-ō* O.H.G. *egg-o* 'glutton'. Gr. *κραυγ-ών* 'screamer, wood-pecker'. Goth. *nut-a* 'fisher', O.H.G. *bot-o* 'messenger'. See § 114 p. 344 ff.

-ter-. Skr. *dā-tār-* *dā-tar-* Gr. *δο-τήρ* *δο-τήρ* *δω-τωρ* Lat. *da-tor* O.C.Sl. *da-tel-ī* 'giver'. Skr. *pā-tār-* *pā-tar-* 'drinker', Gr. *οἶνο-ποτήρ* 'wine-drinker', Lat. *pō-tor* 'drinker, drunkard'. See § 119 ff. p. 376 ff.

-lo-. Gr. *κάπηλο-ς* 'huckster' *δείκηλο-ς* 'actor'. Lat. *figulu-s* 'potter' *legulu-s* 'gatherer, gleaner'. O.H.G. *putil* 'beadle' ('summoner') *brūt-pitil* 'a wooer's best man, suitor's advocate', *tregil* 'bearer'. Lith. *tekėla-s* 'grindstone turning about an axle' (lit. 'runner'). See § 76 p. 198 ff.

We have an example of a suffix of this meaning occurring only in one group of languages in the Lith. *-ika-*, as *szėrika-s* 'feeder' *tuplika-s* 'sheaf-binder', see § 87 p. 262.

Many *nomina agentis* in the Indo-Germanic languages arose

through the metaphorical use of *nomina actionis* for the doer of the action. Thus Skr. *dhāti-ṣ* m. 'shaker' (as f. 'a shaking', cp. Gr. *θύει-ς* f. 'a raging, roaring'), Avest. *rāiti-ṣ* m. 'bestower' (as f. 'bestowal, alms', cp. Skr. *rāti-ṣ* f. 'alms, gift'), O.Ir. *taid* m. O.C.Sl. *taŕi* m. 'thief' (orig. 'concealment, theft'), see § 99 f. p. 293 ff. Skr. *mān-tu-ṣ* 'counsellor' as well as 'counsel, advice', see § 108 p. 323 ff. Cp. § 157.

The *nomina agentis* may be used to denote an activity limited in point of time as well as one constantly repeated. It is especially in the former use that, like the participles, they have developed verbal constructions; for example those in *-ter-*, as Skr. *vāsūni dāta* 'bona dator' beside *vāsūnā dāta* 'bonorum dator' (cp. p. 378 f.), Lat. (rarely) *dator dīvitias*, *jūsta orator* beside *dator dīvitiarum*, *jastōrum orator*, Gr. (Aesch. Prom. 612) *πυρὸς βροτοῖς δοτῆρ' ὄρεῖς Προμηθεῖα* 'thou seest Prometheus, the bestower of fire upon men'. If the connexion between the substantive and the verbal meaning is relaxed, the former may by degrees lose the character of a *nomen agentis* altogether; there then remains only the notion of a concrete thing or person, Thus **pa-ter-* at the time of the separation of the Indo-Germanic races had ceased to mean 'protector', which seems to have been its original signification, and meant simply 'father' (cp. § 146). **uksen-* (Skr. *ukṣān-* Mod.Cymr. *ych* Goth. *aúhsa*) did not mean 'sower, begetter', but 'bull'. Gr. *τρυγών* 'turtle dove' orig. 'cooer' (*τρυζω* 'I coo'), Lat. *praetor* orig. 'qui praeit', O.H.G. *heri-zogo* 'duke' orig. 'leader of a host'.

§ 150. Nomina instrumenti.

-tro- -tlo-. Skr. *ari-tra-m* *ari-tra-s* O.H.G. *ruo-dar* Lith. *ir-kla-s* 'rowing implement, oar'. Skr. *kār-tra-m* 'magic charm'. Gr. *φέρε-τρον* *φέρ-τρον* Lat. *fer-culu-m* 'framework for carrying, litter, bier'. See § 62 p. 118 ff.

-ro- -lo-. Avest. *pata-ra-* 'wing', Gr. *πτερόν* 'feather, wing' (means of flying', √ *pet-* 'fly'). Lat. *scalp-ru-m* 'cutting instrument, knife', *caelu-m* 'chisel' for **caed-lo-m*, *prēlu-m* 'press' for **prem-s-lo-m*. See § 74 p. 180 ff., § 76 p. 198 ff.

-*dhro*- -*dhlo*- in the European languages. Lat. *sū-bula in-sūbulu-m* Czech *št-dlo* 'punch, awl' (Lat. *suere*). Gr. *κῆλη-θρο-ν* 'magic charm', *ἐπι-βάθρα* 'means of climbing, ladder'. Lat. *crt-bru-m*, *tere-bra*, *suscita-bulu-m*. Czech *běli-dlo* 'means of colouring white, white paint'. See § 77 p. 213 ff.

Gr. -*τήριο*- Lat. -*tōrio*- in neuter nouns. Gr. *θελκ-τήριο-ν* 'means of enchantment or delight' *κρι-τήριο-ν* 'means or ground of decision' *καλλυν-τήριο-ν* 'means of adornment, ornament' *κανσ-τήριο-ν* 'branding iron' *σημαν-τήριο-ν* 'seal, stamp', Lat. *liquā-tōriu-m* 'filtering vessel, strainer' *scalp-tōriu-m* 'instrument for scratching' *circum-cīstōriu-m* 'lancet'. See § 63 p. 128 f.

Lith. -*tuva*-: *kosz-tuva-s* 'strainer, sieve', *min-tuvaĩ* 'tool for tearing flax' and other examples see § 61 p. 117.

Nomina agentis (§ 149) are often used to denote an instrument, this being regarded as if it were a living performer of the action: cp. Mod.H.G. *träger* used both for the person who carries and for the means of carrying (beams and the like), *feld-messer* 'surveyor's instrument' and *gas-messer* 'gasometer' [Eng. *shutter*, *fender* etc.] and the like. Thus Skr. *sā-tār* 'fetter, bonds' (*si-* 'enchain, bind'), Gr. *ῥαυστήρ* 'hammer' (*ῥαίω* 'I shatter, crush') *ζευκ-τήρ* 'yoke-strap' (*ζεύγνυμι* 'I yoke') *ἄρν-τήρ* 'ladle, spoon, scoop' (*ἄρνω* 'I draw water, ladle') just like *δο-τήρ* 'giver'; Lat. *runcō*, -*ōn-is* 'hoe' like *edō* -*ōn-is*; O.H.G. *meizil* 'chisel' (Goth. *máita* 'I hew') *sluzzil* 'key' (lit. 'he who closes') *slegil* 'mallet' ('beater') just like *putil* 'beadle'.

We find also *nomina actionis* becoming names of instruments, see § 155.

§ 151. *Nomina loci*. The suffixes chiefly used to form names of places were those which also formed *nomina instrumenti* (§ 150). A locality may often be regarded as the means for the performance of an action, e. g. a hiding-place is a means of concealment. When a suffix has so acquired this function in a few words, it may then be used directly in other words as a suffix denoting locality.

-*tro*- -*tlo*-. Skr. *kṣē-tra-m* 'place of settlement, field' Avest. *šōi-pre-m* 'place of settlement, dwelling-place'. Skr. *sthā-trá-m*

'standing-place, position', *jant-tra-m* 'birthplace, home'. Gr. *λέκτρον* 'lying-place, bed', *θίατρον* 'place of exhibition, theatre'. Lat. *cubi-culu-m*, *spectā-culu-m*, *hospitā-culu-m*, *ambulā-cru-m*. Lith. *bū-klà* 'home', *bu-klà-s* (*ū?*) 'lair of an animal'. See § 62 p. 118 ff.

-ro- -lo-. Skr. *mand-irā-m* housing, chamber, house', Gr. *μάνδρα* 'fold, pen, stall'. Skr. *aj-irā-m* 'arena, courtyard'. Gr. *ἔδρα* O.Icel. *set-r* n. 'seat'. Gr.Lac. *ἑλλά* for **ἔδ-λα* Lat. *sella* for **sed-lā* Goth. *sit-l-s* 'seat', O.C.Sl. *selo* 'fundus, habitaculum' Upper Sorb. *sy-dlo* 'dwelling-place'. Here no doubt should be classed Idg. **ag-ro-s* 'common, meadow, field' (Skr. *áj-ra-s*, Gr. *ἀγρός* Lat. *ag-er* Goth. *ak-r-s*) as denoting 'a place for driving cattle', ✓ *ag-* 'agere', cp. Skr. *ajirá-m*; the word acquired the meaning 'arable land' only when pasturing gave way to tillage, and the greater part of the land was cultivated by the plough. See § 74 p. 180 ff., § 76 p. 198.

-dhro- -dhlo-. Gr. *ἀλινθή-θρα*, 'wallowing-place', *γενέθλη* 'birthplace' ἔδε-θλο-ν 'seat, site'. Lat. *voluta-bru-m* 'wallowing-place for swine', *sta-bulu-m*, *nata-bulu-m*, *concilia-bulu-m*, *lati-bulu-m*, *late-bra*. Czech *by-dlo* 'dwelling'. See § 77 p. 213 ff.

Gr. *-τηριο-* Lat. *-tōriū-*. Gr. *ἀγωνισ-τήριο-ν* 'place of battle', *ἀκροα-τήριο-ν* 'hall of audience', *ἔσγασ-τήριο-ν* 'place of work', *βουλευ-τήριο-ν* 'council hall'. Lat. *audī-tōriū-m* *dēversōriū-m* *condi-tōriū-m*.

Other suffixes came in other ways to denote locality. Thus *-xen-* in Greek, as *οἰνεών οἰνών* 'wine-bin', *παρθενιών παρθενών* 'maidens' apartment', *ἱππών* 'stable', *λασιών* 'place thick with bushes', see § 116 p. 364. *-to-* in Lat., as *arbus-tu-m* 'plantation' ('something provided with trees'), *filic-tu-m* 'place full of ferns', *cārec-tu-m* 'place full of reeds', see § 79 p. 231 f. and cp. § 152. Cp. further the *nomina actionis* which have become names of place, § 155.

§ 152. Collective Nouns. Under this head there is little to notice. The chief means which the Indo-Germanic languages possess of denoting groups of things collectively in the singular

is the use of the neuter (e. g. Gr. *ὑπήκοο-ν* 'dependencies' compared with *ὑπήκοο-ς* 'subject, dependent') which cannot be properly considered in this section, although indeed the view of the distinctively neuter case-suffixes as having been originally used to form the stem of the noun to which they were added is one which has nothing against it and a good deal in its favour. Nor are we here concerned with the collective use of the singular in names of peoples and the like (e. g. Gr. *ὁ Πέρσης* = 'the Persians' O.Pers. *māda* = 'the Medes collectively, Media'), or with the later use of compounds in which the final member had become a kind of suffix, (e. g. O.H.G. *liut-scaf* 'natio' Mid.H.G. *heiden-schaft* 'heathendom, the Saracens and their country').

Notice first that denominative adjectives, denoting connexion with the word from which they are derived, are a very common means of representing the collective idea. It will be found, I believe, that the neuter is regular in all the cases which occur frequently, and this was a factor of importance in expressing the collective meaning. E. g. Gr. *-ικό-ν*: *ἵππικό-ν* 'body of horsemen', *ὀπλιτικό-ν* 'body of heavyarmed troops', *συνμαχικό-ν* 'alliance, host of allies', see § 87 p. 260. The Lithuanian collectives in *-ýna-s* also, such as *aušl-ýna-s* 'a number of oaks standing together, grove of oaks', *krūm-ýna-s* 'thick underwood', *akmen-ýna-s* 'heap of stones', appear to have been originally neuter, see § 68 p. 159.

We must further observe that sometimes suffixes used in substantives denoting a quality are also used collectively; e. g. Skr. *janá-tā* 'company of people, community', Little-Russ. *bidota* 'proletariate' *temnota* 'ignorant people' (§ 80 p. 238 ff.), Gr. *φρατρία* O.C.Sl. *bratřija* 'brotherhood' (§ 63 p. 125 ff.).

The collective nouns cannot always be clearly distinguished from the *nomina loci* (§ 151). A few of the group of Latin neuters in *-tu-m* mentioned in the previous section may be repeated here; e. g. *arbus-tu-m* 'plantation', *virgul-tu-m* 'bushes', *salic-tu-m* 'willow plantation, undergrowth of willows'.

§ 153. Diminutives and Pet Names. The sense of diminution (depreciation, detraction, endearment and so forth)

often disappeared, partly even in prehistoric periods. Compare the diminutive adjectives in § 142.

-*lo-*. Skr. *ṛṣa-lā-s* 'mannikin, small man', *śalaka-lā* 'little shaving'. Gr. *ἀρκυλός* 'young bear'. Lat. *porc-ulu-s* *porcil-ia* O.H.G. *farhel-i* Lith. *parszē-l-i-s* 'little pig, sucking pig'. Lat. *rot-ula* Lith. *ratē-l-i-s* 'small wheel'. O.H.G. *bendil* 'little band'. See § 76 p. 198 ff.

-*qo-*. Skr. *marya-kā-s* 'mannikin', Gr. *μῆραξ* 'girl' *μειράκιον* 'boy'. Skr. *aśva-kā-s* 'small horse'. Gr. *βῶμαξ* 'small altar'. Lat. *homun-c-iō* 'mannikin' (in the sense of a weak creature), *ovi-c-ula* 'little sheep'. Lith. *parszūka-s* 'little sucking pig', *tėvūka-s* 'little father', O.C.Sl. *synū-kŭ* 'little son'. See § 84 p. 252 f., § 88 p. 262 ff.

Usages confined to single groups of languages: Gr. neuters in -*io-v*: *ὀρνίθ-ιο-ν* 'small bird', *ἐταυρίδ-ιο-ν* 'little mistress', *ἀσπίδ-ιο-ν* 'small shield', *ἀδελφ-ίδιο-ν* 'little brother', see § 63 p. 128. Germanic neuters with -*īna-*: Goth. *gait-ein* O.H.G. *geiz-īn* 'little goat', Goth. *gum-ein* 'little man', see § 68 p. 158. In both these instances the intermediate stage was the idea of belonging to a species, which suggested that of incompleteness and inferiority. The developement was perhaps the same in the case of the suffix -*ien-* in Avest. *kain-in-* f. 'girl', Lat. *pūs-iō* 'little boy' *pūmil-iō* 'dwarf' *senec-iō* 'little old man' *homunc-iō* and others of the same sort, see § 115 p. 358. 359. Mention should also be made of the Germanic diminutives with Idg. -*go-*, such as O.H.G. *armihha* 'paupercula' *snurihha* 'little daughter-in-law', see § 91 p. 277.

Diminutive suffixes were often combined, as Gr. -*x-io-*, Lat. -*c-ulo-* -*l-ulo-*, Germ. -*l-ina-*, Lith. -*lē-la-* (nom. -*lē-l-i-s*). This was done partly to give a fuller and more emphatic expression to the idea of diminution, e. g. Lat. *agellulu-s* beside *agellu-s*, from *ager* 'field', Lith. *mergelėle* beside *mergėlė*, from *mergà* 'girl', partly in consequence of a complete loss of the diminutival sense in the first suffix, e. g. Lat. *mus-c-ulu-s*, Mod.H.G. *ferk-el-chen*.

-*lo-* and -*go-* were frequently employed in the proethnic and later periods in names of persons, especially to form 'pet names'. How far indeed the suffix retained its proper sense, is often hard to determine in any particular instance. Skr. *bhānu-la-s*, Gr. *Θρασύ-λο-ς*, O.Ir. *Tuathal*, Goth. *Vulfi-la*, Pruss. *Butil*. Skr. *dēva-ka-s* *dēvika-s* Gall. *Divico* *Divic-ia*, Skr. *śuna-ka-s* Gr. *Kύναξ*, Skr. *sana-ka-s* Gall. *Senicco* *Seneca* O.H.G. *Sinigu-s* (the termination is Latin), O.H.G. *Berhtung* *Berhting*, Pruss. *Tewiko* *Banduke*.

Relation of Adjectives to Concrete Substantives.

§ 154. No distinction in form has ever been made in the Indo-Germanic languages between the adjective or participle on the one hand and the concrete substantive on the other.

Adjectives were used without change as substantives, just as substantives were often used without change as adjectives. Thanks to this usage the original adjectival or substantival character was often completely lost; thus Idg. **dont-* 'tooth' (Skr. *dānt-* etc.), originally a verbal adjective meaning 'eating', became a simple substantive, perhaps even in the proethnic period (§ 126 p. 394. 398). The original character of a particular word however often appears side by side with the new sense, e. g. Lat. *nātū-s* 'born' and 'son', *uber* 'udder, exuberant fulness, abundance' and 'fertile, rich'.

The process of the change from adjective to substantive was frequently that the meaning of the adjective came to include the idea of some substantive to which the adjective was especially often applied. Thus *ναῦς* 'ship' was often left unexpressed Greek, as in the phrases *ἡ τριήρης*, *ἡ πρόμυρη*. In many instances the different languages show a remarkable agreement, and there the usages in question may date from the Indo-Germanic period. Thus we have fem. Gr. *δεξιὰ* (sc. *χείρ*) Lat. *dextra* (sc. *manus*) 'the right hand', O.Ir. *for deis* (sc. *laim*) 'on the right', Goth. *tathsva* (sc. *handu-s*), Lith. *deszinė* (sc. *rankà*) 'the right hand', but on the contrary masc. Skr. *dákṣiṇa-s* (sc. *hāsta-s*) 'right hand'. Lat. *capr-īna*

'goat's flesh' Lith. *ož-ėnà* 'flesh of a he-goat' O.C.Sl. *bǫbrov-ina* 'beaver's flesh'; Lat. *rap-ina* 'turnip-field' Lith. *aviž-ėnà* 'oat-field' O.C.Sl. *nov-ina* 'newly ploughed land, fallow land', see § 68 p. 156 ff.

But some formative suffixes acquired the special function of converting adjectives into substantives, being used as denominative suffixes to form names of persons or things possessing the attribute or quality which was expressed by the original word. *-en-* is very commonly so used, especially in Germanic; e. g. Avest. *mar't-an-* 'a mortal' beside *mar'ta-* 'mortal', Gr. *στραβ-ων* 'squinter' beside *στραβός-* 'spinting', Lat. *Ruf-ō* beside *rūfu-s* Goth. *ráud-a* 'red one' beside *ráuþ-s* 'red', Lith. *rud-ũ* 'autumn' beside *rũda-s* 'reddish-brown'. See § 114 p. 344 ff. Other suffixes of this kind are found only in single groups of languages, as *-āgo-* in Balt.-Slav., e. g. Lith. *naujōka-s* O.C.Sl. *novakũ* 'novice' beside *naũje-s* *novũ* 'new' (§ 89 p. 274), and Germ. *-inga-*, e. g. O.H.G. *arming* 'poor man, poor fellow' beside *arm* 'poor' (§ 88 p. 267).

Substantives denoting an activity or state (*nomina actionis*, verbal abstract nouns).

§ 155. To denote an activity or a state is in general the function of the verb. Substantives which express an action or a state owe their existence to a metaphor, as do those which denote a quality (§ 157), — action and state being regarded as belonging to the category of material objects.

It often happens that the *nomen actionis* does not express its own idea simply, but represents also, by a confusion, the notion of a person or thing that is in some way connected with the action; thus such substantives come to denote material objects. The designation of the action may be applied to its (grammatical) subject: e. g. Mod.H.Germ. *rat* (properly 'advice') = 'adviser, counsellor', *strom strömung* (properly 'a streaming') = 'streaming water', *verzierung* (properly 'an adorning') = 'something which adorns'. [Cp. Eng. *counsel* (in e. g. *Queen's Counsel*), *a grief* = 'something which grieves', *a hindrance* = 'something

which hinders']. Or it may be further extended to denote the external (direct) object of the action, that which is in any way affected by the action, e. g. Mod.H.Germ. *saat* (properly 'a sowing') = 'what is sown', *wohnung* (properly 'the act of inhabiting') = 'the house a man inhabits' [cp. Eng. *contrivance* = 'what is contrived', *belief* = 'what is believed']. Or to the internal ('cognate') object, thus giving rise to a term for the result of the action, e. g. Mod.H.Germ. *riss* (properly 'a rending') = 'a rent', *wuchs* (properly 'a growing') = 'the result of growing, growth, figure', *vereinigung* (properly 'a uniting') = 'the result of uniting, a united body' [cp. Eng. *growth*, *union*, *a spelling* = 'the method or result of spelling a word']. In the same way we have such words used as *nomina instrumenti*, e. g. Mod.H.Germ. *verzierung* = 'means of adornment', *lösung* (properly 'a setting free') = 'means of setting free, redemption-money' [cp. Eng. *distinction* = 'means of distinguishing', *influence* ('he will use his influence for me') = 'means of influencing', *relief* = 'means of relieving']; or as *nomina loci* e. g. Mod.H.Germ. *wohnung* = 'a dwelling-place', *trift* (properly 'a driving') = 'pasture-land' [cp. Eng. *dwelling*, *pasture*] etc. Cp. Paul Princ.² p. 81 f.

These various developements are generally difficult to separate clearly, and hence in what follows we shall not confine our attention to the *nomina actionis* in the strict sense but consider along with them those which show the secondary variations of meaning that have just been enumerated.

We will begin with the suffix which seems to retain the simple meaning of an action or state most regularly.

-ti-: **sru-ti-s* 'a flowing, stream': Skr. *srutí-ṣ* Gr. *ῥίσις*. **qi-ti-s*: Skr. *āpa-cití-ṣ* 'requit, punishment' Gr. *τίσις* 'valuation, fine, punishment'. Skr. *ma-tí-ṣ* 'thought, mind', Gr. *μάντις* (m.) 'one inspired, seer', Lat. *mēns* 'mind', Goth. *ga-mund-s* 'remembrance' *ana-mind-s* 'conjecture', Lith. *at-mintī-s* 'memory', O.C.Sl. *pa-meŕi* 'remembrance'. Skr. *śru-tí-ṣ* 'hearing, sound, news, tale', *syū-ti-ṣ* 'sewing, sack', *prá-jñati-ṣ* 'perception' *jñā-tí-ṣ* m. 'relative', Gr. *χύσις* 'outpouring, gush, libation', *ῥήσις* 'speaking, word'.

ὄψις 'sight, countenance', μάχῃ-τις (m.) 'seizer, robber'. Lat. *mors*, *tussi-s*, *ves-ti-s*, *cōs*, *hos-ti-s*. O.Ir. *buith* 'existence', *bli-th* 'painting'. Goth. *us-taúht-s* 'perfection, completion', *fra-lust-s* 'loss, destruction', *saúh-t-s* 'sickness, illness', *ga-skapt-s* 'creation, created thing', O.H.G. *sih-t* 'sight, power of sight', Mid.H.G. *trift* 'driving, common (cattle-drive), meadow'. Lith. *dū-ti-s* O.C.Sl. *da-tŭ* 'gift'. Lith. *gir-ti-s* 'feast', *skūsti-s* 'cleft in the hoof of cattle', *pir-ti-s* 'bath-room', *pri-eitl-s* 'suburb'. O.C.Sl. *po-znatŭ* 'cognitio', *vrstŭ* 'state, condition, position', *sč-tŭ* 'string'. See § 100 p. 294 ff.

-ni-. Skr. *lū-ni-ṣ* 'a tearing loose, severance', Goth. *lū-n-s* 'means of deliverance, ransom money'. Skr. *gr-ni-ṣ* 'a swallowing', *jūr-ni-ṣ* 'heat'. O.Ir. *tain* 'a driving forth, booty', *buain* 'harvesting, harvest'. Goth. *ana-busn-s* 'bidding, injunction, order', *ga-rēhn-s* 'intention, plan', *siun-s* 'a seeing, power of sight, countenance, appearance'. Lith. *bar-ni-s* 'quarrel' O.C.Sl. *bra-ni* 'battle'. Lith. *žinksni-s* 'step'. O.C.Sl. *stĭg-nŭ* 'way, road'. See § 95 p. 285 ff.

-tu-. Skr. *gán-tu-ṣ* 'course, way', Lat. *ad-ventu-s*. Avest. *vi-datu-ṣ* 'decomposition of the body, dissolution, death'. Gr. *παισνύς* 'a founding', *ἀσπονδισνύς* 'javelin-throwing, fight with javelins'. Lat. *ad-itu-s*, *or-tu-s*, *gemi-tu-s*. O.Ir. *mess* 'deciding, sentence'. Goth. *kus-tu-s* 'trial, proof', *vahs-tu-s* 'growth'. Lith. *lytū-s* *lētu-s* 'rain'. See § 108 p. 323 ff.

-mo- -mā-. **dhū-mo-s* 'ebullition': Gr. *θῦμός* 'ebullition of temper, passion, courage', Skr. *dhūmā-s* Lat. *fūmu-s* Lith. *dūmai* O.C.Sl. *dymŭ* 'smoke'. Skr. *sār-ma-s* 'a flowing', Gr. *ὄρμη* 'impulse'. Skr. *bhā-ma-s* 'light, brightness'. Gr. *παραμός* 'sneezing', *ἰγμός* 'shrieking', *ἀπαραμός* 'plundering, booty', *δασμός* 'partition, division', *τιμή* 'estimation, honour', *γνώμη* 'intention, opinion'. Lat. *ani-mu-s* *ani-ma*, *fā-ma*. Goth. *dō-m-s* O.H.G. *tuo-m* 'sentence, judgment, position, worth', O.H.G. *strō-m* 'stream'. Lith. *lañksma-s* 'bending', *rėksma-s* 'roar', *suklma-s* 'a turning', *sākyma-s* 'a saying'. O.C.Sl. *u-mŭ* 'mind, understanding'. See § 72, 3 p. 170 ff.

-men-. Skr. *dhā-man-* 'statute, operation, seat, dwelling-

place'. Avest. *dāman-* 'creation, created thing', Gr. ἀνάθημα 'a setting up, that which is set up, votive offering' θέμα 'a storing up, deposit'. Skr. *dā-man-* 'a giving', Gr. δόμα 'gift'. Gr. ῥεῦμα ῥύμα O.Ir. *sruaim* 'a streaming, stream'. Skr. *bhār-man-* 'support, fostering care', Gr. φέρμα 'fruit of the womb', O.C.Sl. *brě-mę* 'burden'. Skr. *hāvī-man-* 'a summoning', έ-man- 'a going', *dhār-man-* 'prop, support'. Gr. ῥίμα 'a throwing', νόημα 'thought', ὄραμα 'sight', ζεύγμα 'bond, bridge of boats'. Lat. *nā-men*, *lū-men*, *agmen*, *certā-men*. O.Ir. *cēim* 'a stepping, step', *bēim* 'a striking, stroke', *gairm* 'call, cry'. Goth. *hliu-ma* 'hearing', *skei-ma* 'a light' O.H.G. *scī-mo* 'brightness, gleam'. Lith. *rė-mũ* 'heart-burn', *aug-mũ* 'excrecence'. See § 117 p. 365 ff.

-o-, -a-. Skr. *jān-a-m* 'birth, origin', Gr. γόνος 'birth, offspring'. Gr. χόμος 'noise, murmur, neighing', O.C.Sl. *grom-ŭ* 'thunder'. Skr. *ghōṣ-a-s* 'sound, din' Avest. *gaos-a-* m. 'ear'. Gr. ὀλκός 'dragging, that which drags', τόμος 'cut, slice'. Goth. *ga-fah-s* 'capture', *dragk* 'drink'. Lith. *ūž-valka-s* 'outside covering, bed-covering' O.C.Sl. *oblakŭ* 'cloud'. Gr. ῥοή 'flood', Lith. *srav-à* 'flowing, bleeding'. Gr. φυγή Lat. *fug-a* 'flight'. Skr. *bhid-á* 'split, division'. Goth. *gib-a* 'gift'. See § 60 p. 109 ff.

-es- -os- -s-. Skr. *dāśas* 'glorious deed', Gr. δήνα 'counsels, wiles'. Skr. *āpas āpas* 'work, religious performance', Lat. *opus*. Gr. ῥίγος Lat. *frīgus* 'cold'. Skr. *dōhas* 'milking', *nāmas* 'obeisance, reverence', Avest. *tacō* 'course'. Gr. ῥδος 'pleasure', αἶθος 'brand', δέος 'fear'. Goth. *hatis* 'hate', *agis* 'fear'. Gr. αἰδώς 'shame, modesty'. Lat. *tepor*, *amor*. See § 131 ff. p. 411 ff.

-ien- -tien- in some European languages. Lat. *cap-iō*, *religiō*, Goth. *ga-runjō* 'overflow', *sakjō* 'strife'. Lat. *ra-tiō*, Goth. *ra-þjō* 'ratio'. Lat. *men-tiō*, O.Ir. *er-mitiu* 'honor'. See § 100 p. 294 ff., § 112 p. 341 f., § 115 p. 357 ff.

Other suffixes used in the formation of *nomina actionis* will be discussed in §§ 156 and 158.

When the *nomina actionis* had come to denote material objects, they were liable a still further extension of meaning, namely to be used as adjectives (cp. § 154). Here perhaps should

be classed e. g. Skr. *pū-ti-ṣ* 'stinking' and *tapya-tū-ṣ* 'hot, glowing', originally 'stench' and 'heat, glow'.

Relation of the *nomina actionis* to the Infinitive (Supine)¹).

§ 156. Since the *nomina actionis* denote not merely a continuous activity but also one which may be defined in point of time, they sometimes come to be used in verbal constructions. Here, as in the case of the adjective (§ 144), the connexion with the verb may include the power of governing a case, and of distinguishing differences of time, different kinds of action (such as momentary, continuous, inceptive) and Voice (*diathesis*, *genus verbi*).

This kind of assimilation to the character and construction of the verb appears e. g. in Gr. τὴν τοῦ Θεοῦ δόσιν ὑμῖν (Plat.) 'the gift of God to you', περὶ δὲ σφίσι καταδουλώσειως (Thuc.) = περὶ δὲ τοῦ ἑαυτοῖς καταδουλωθῆναι (τοὺς Ἕλληνας), Lat. *reditus Rōmam*. But a still more complete identification is seen in what are called infinitives (and supines), which are crystallised cases (generally acc., dat., loc.) of *nomina actionis*. An infinitive may be said to be completely formed when the noun is no longer regarded as a case-form belonging to its own system, and its construction no longer follows the analogy of its original use as a noun; this is true, for example, of Gr. δόμεναι δοῦναι Lat. *dare*, at the earliest period of which we have record. Before, however, such forms were completely isolated from the nominal system,

1) E. Wilhelm, De infinitivi linguarum Sanscr. Bactr. Pers. Graeco. Oso. Umbr. Lat. Got. forma et usu, 1873. J. Jolly, Geschichte des Infinitivs im Indogermanischen, 1873. A. Ludwig, Der Infinitiv im Veda, 1871. M. Müller, Grammatical forms in Sanskrit corresponding to the so-called Infinitives in Greek and Latin, Essays IV 420 ff. H. Brunnhofer, Über Dialectspuren im vedischen Gebrauche der Infinitivformen, Kuhn's Ztschr. XXV 329 ff. Chr. Bartholomae, Die Infinitivbildung im Dialect der Gāthā's, ibid. XXVIII 17 ff. L. Meyer, Der Infinitiv der homer. Sprache, Gött. 1856. E. Windisch, Zum ir. Infinitiv, Bezenberger's Beitr. II 72 ff. A. Denecke, Der Gebrauch des Infinitivs bei den ahd. Übersetzern des 8. u. 9. Jahrh., Leipz. 1880. W. Müller, Über den letto-slavischen Infinitiv, Kuhn-Schleicher's Beitr. VIII 186 ff.

they passed through a number of intermediate stages, and hence it is often hard to say whether any particular form should be called an infinitive in the strict sense of the word¹⁾. The infinitives that least deserve the name are the Irish, because the *nomina actionis* used in Irish where other languages use the infinitive retained the construction of nouns, e. g. *ar-dot-chuibdig fri sechem na m-bria-thar sin* 'pledge thyself to obey these words' (literally 'to the obeying of these words'). In this latter respect (the power of governing an acc.) even the language of the Veda shews a further degree of developement; e. g. we find not only *ándhasah pītáyē* 'for the drinking of the soma-juice', but also *ándhāsi pītáyē*; the same double construction is found in the Avesta (cp. Bartholomae, Kuhn's Ztschr. XXVIII 12 f.). The infinitive reached its most characteristic developement in Greek and Latin, the only languages in which we find a special expression for differences of voice.

The following formative suffixes are distributed amongst the infinitival forms (we may omit the Keltic infinitives). *-tu-* in Ar., Lat., Balt.-Slav., see § 108 p. 323 ff. *-ti-* in Ar., Balt.-Slav., see § 99 f. p. 293. *-men-* in Ar., Gr., see § 117 p. 365 ff. *-yen-* in Ar., Gr., see § 116 p. 362 ff. *-es-* in Ar., Lat., see § 131 f. p. 411 ff. In single groups of languages: *-i-* in Ar., see § 93 p. 279 f.; *-lo-* in Armen., see § 76 p. 202; *-o-* in Umbr.-Samn., see § 60 p. 114; *-ono-* in Germ., see § 67 p. 153. 154.

As the participle might again become a simple noun (§ 144), so also could the infinitive. In this case, however, the process was more difficult because it was not inflected. The approximation to the noun was easiest where there was least necessity for expressing its relations by means of inflexion, that is, in its use as subject or object; e. g. Gr. πάντεσσιν ἐπὶ θυροῦ ἵσταται ἀκμῆς ἢ μύλα λυγροῦς ὀλεθροῦ Ἀχαιοῖς ἥ ἐ βιῶναι (Hom. K. 173), πειρήσω ἀλαλκεῖν (Id. T. 30), Lat. *habēre ēripitur*, *habuisse nun-*

1) Hence e. g. the objection urged by Brunnhofer against Ludwig and Wilhelm, that they had adduced as infinitives Vedic forms which were nothing but *nomina actionis* (Kuhn's Ztschr. XXV 330).

quam (Sen.), *hic verērī* (= *verēcundiam*) *perdidit* (Plaut.). This led on to such constructions as Gr. τὸ λέγειν, Lat. *tuom amāre* (Plaut.), *nostrum istud vīvere triste* (Pers.), *nīl praeter plōrāre* (Hor.), *quid hūius vīvere est?* (Sen.)¹ and so forth. See Paul Princ.² 311 f.

Substantives denoting a quality (Abstract Substantives in the strict sense).

§ 157. Substantives which denote a quality, owe their existence to a metaphor just as do the *nomina actionis*: an attribute or natural quality was regarded as belonging to the class of material objects.

Substantives denoting a quality often come to designate the person to whom the quality belongs, e.g. Mod.H.G. *Jugend* = 'youthful persons, young folk (collectively)' or 'a single youthful person', [Eng. *youth*]. But it is difficult to maintain any sharp distinction between the separate uses, and therefore the words which show this secondary developement of meaning will be treated along with the rest. It is important also to recognise the fact that no hard and fast line can be drawn between this class of nouns and the *nomina actionis* with their secondary shades of meaning. It is natural enough that the two divisions should often overlap.

The suffixes that most frequently appear in these abstract nouns are the following.

-*tā*-. Avest. *cista*- 'wisdom'. Gr. *πινυτή* 'prudence, understanding'. Lith. *geltā* 'yellowness'. Lat. *juventa* Goth. *junda* 'youth'. Skr. *pūrṇatā*- O.H.G. *fullida* O.C.Sl. *plūnota* 'fulness'. Skr. *ghōratā*- 'awfulness' Goth. *gaurīpa* 'trouble'. Skr. *dīrghatā*- O.C.Sl. *dlūgota* 'length'. In Greek and Slavonic are found concrete nouns like ἀγρότης 'countrymen' *junota* 'youth'. See § 79 p. 220 ff., § 80 p. 238 ff.

-*tāti*- -*tāt*- and -*tūti*- -*tūt*-. Skr. *sarvātāti*-§ *sarvātāt*- 'completeness' Avest. *haurvatāt*- 'safety' Gr. *όλότης* 'totality, entirety'. Gr. *νότης* 'youth', Lat. *novitas* 'novelty, strangeness'.

1) Cp. Wölfflin, Der substantivierte Infinitiv [im Latein], Archiv für lat. Lexikogr. III 70 ff.

Lat. *juventās* and *juventūs*. O.Ir. *oentu* 'unitas'. Goth. *gamáin-dūþ-s* 'communitas'. See § 102 p. 308 ff.

-*nā*-. Avest. *per'nā*- Goth. *fullō* 'fulness'. Skr. *jaraṇḍ* 'decrepitude, age'. See § 65 ff. p. 138 ff.

-*īo*- -*īā*-. Skr. *pālitya-m* 'greyness', *śraīṣṭhya-m* 'excellence'. O.H.G. *gi-fuori* 'fitness, usefulness'. Lith. *ilgi-s* 'length', O.C.Sl. *ostrije* 'sharpness'. Gr. ἀγχιότης 'manliness', ἀναρχία 'anarchy'. Lat. *audacia* 'boldness', *modestia* 'moderation', *sapientia* 'wisdom'. See § 63 p. 122 ff.

-*tyo*- -*tyā*-. Skr. *dēvatvā-m* 'divinity', *śucitvā-m* 'purity', *sātmavā-m* 'inspiration, possession by a deity'. Goth. *þivadv* 'servitude', *fiþaþva* 'enmity'. O.C.Sl. *zēlstvo* 'violence'. See § 61 p. 116 f.

-*ti*-. **penqti-s* 'fivefold character, pentad, the number five': Skr. *pañkti-ṣ* O.Icel. *fimt* O.C.Sl. *peti*. Skr. *yuvati-ṣ* 'maiden' (orig. 'youth' (abstr.)) O.H.G. *jugund* 'youth'. O.C.Sl. *dlūgostī* 'length', *qzostī* 'narrowness'. See § 99 p. 293, § 101 p. 306 ff.

-*es*- -*os*-. **reges*- 'gloom, darkness': Skr. *rājas* (Armen. *erek*) Gr. ἔρεβος Goth. *riqis*. Skr. *māhas-* 'greatness, size', *yāśas-* 'glory', Gr. εὐρος 'breadth', μήκος 'length', βέθυνος 'depth', μέγεθος 'size, greatness'. Lat. *Venus* 'charm of love', *languor* 'weariness', *lēvor* 'smoothness', *dulcor* 'sweetness'. See § 131 ff. p. 411 ff.

In single groups of languages: e. g. Lat. -*tūdin-*, *fortitūdō* 'fearlessness', *lassitūdō* 'weariness' (cp. § 128 p. 409), Lith. -*ybė-*, *auksztībė* 'height, highness', O.C.Sl. -*ba-*, *zūloba* 'wickedness' (§ 78 p. 217 f.).

The Relation of Adjectives to Abstract Substantives (*nomina actionis* and substantives denoting a quality) formed with the same suffixes.

§ 158. In conclusion we have to discuss another question which bears upon the origin of the substantives denoting an action or a quality and the general relation between adjectives and substantives in Indo-Germanic.

Many nouns formed with *-o*-suffixes act both as adjectives and as abstract substantives; as a rule it happens that the

feminine or neuter form, more rarely that the masculine form is the one which is used substantivally. If the adjective is a *nomen agentis*, we have a corresponding *nomen actionis*, e. g. Skr. *srutá-s* 'flowing': *srutá-m* n. 'a flowing, flood'. Or if it predicates an attribute, then the corresponding substantive denotes the attribute, e. g. Lith. *gel̃ta-s* 'yellow': *gel̃tà* f. 'yellowness'.

The following are examples.

-to- -tā-

Feminine. Avest. *cistā-* 'wisdom': Skr. *cittā-* partic., in the neut. 'observation, thought, intent, spirit'. Gr. *πινυτή* 'intelligence, wisdom': *πινυτό-ς* 'intelligent'; *γενετή* 'birth, origin': Lat. *genitu-s*; *βροντή* 'thunder'. Lat. *offēsa* 'a striking against, offence': *offēsu-s*; *repulsa* 'rejection': *repulsu-s*; *impēnsa* 'expenditure': *impēnsu-s*; *multa* 'punishment': *mulsu-s* instead of **mol(c)tu-s* (the isolation of the substantive from the participle preserved it from the analogical change which affected the latter), Skr. *ṃṣṣtā-* 'grasped, touched'. O.Ir. *ed-part ed-bart* 'oblatio': *do-breth* Mid.Ir. 'datum est', (Skr. *bhytā-s* Gr. *φειρό-ς*); *loth* 'filth': compare this and the Lat. *lutu-m lutu-s* 'mud' with Lat. *-lūtu-s* (*ab-lūtu-s* etc.) 'besprinkled, soiled'. Goth. *skanda* O.H.G. *scanta* 'disgrace': O.H.G. *scant* 'shamed'; O.H.G. *forahta* 'fear': Goth. *faurht-s* 'fearful'; A.S. *zud* 'battle': Skr. *hatā-* 'smitten'. Lith. *gel̃tà-* 'yellowness': *gel̃ta-s* 'yellow'; *banktos* pl. 'boisterousness, storm': *bankta-s* 'boisterous'. O.C.Sl. *vr̃sta* 'condition, state, position, stage': Skr. *ṽrttā-* 'versus'. The secondary Idg. suffix *-tā-* in Lat. *juventa* Skr. *pūr̃ṇatā* etc. should be added here, see p. 238 ff.

Neuter. Skr. *mṛtā-m* 'death' O.H.G. *mord* 'murder': Skr. *mṛtā-s* 'dead'. Skr. *matā-m* 'meaning, opinion, intent' Lat. *com-mentu-m* 'idea, invention, design' O.Ir. *der-met* 'forgetfulness': Skr. *matā-* 'thought, intended'. Idg. **kleu-to-m* 'faculty of hearing' Avest. *sraote-m* Goth. *hliup*: Skr. *śrutā-s* 'heard'. Skr. *srutā-m* 'flowing, flood, stream': *srutā-s* 'flowing'; *stutā-m* 'laudation, praise': *stutā-s* 'praised, lauded'; *mānita-m* 'a doing of honour': *mānita-s* 'to whom honour is done, honoured'; Avest.

fra-āate-m 'help, success': *fra-āata-* 'helped, made'. O.H.G. *feriā* 'navigium'. O.C.Sl. *pāto* 'fetter': partic. *peŭū*. Here we must also class Idg. *-mŭ-to-*, as in Skr. *śrōmata-m* 'a listening to' O.H.G. *hlumunt* 'repute, character', Lat. *cōgnōmentu-m*, see p. 249.

Masculine. Skr. *ghā-ta-s* 'blow, slaying'. Avest. *stutō* 'laudation, prayer', cp. Skr. n. *stutā-m*. Gr. *κονι-ογρό-ς* 'raising of the dust, cloud of dust': *νέ-ογρο-ς* 'newly arisen' Lat. *ortu-s*; *ἐμερο-ς* 'vomiting': *ἐμερό-ς* Skr. *vamita-s* 'vomited'; *σπαρό-ς* 'encamped host': Skr. *stytā-s* Gr. *σπαυρό-ς* 'outspread, outstretched'; *οἴρο-ς* 'fate': Skr. *ēta-s* 'hasting' Lat. *-itu-s*; *φόρο-ς* 'burden': *φερό-ς* 'bearable' Skr. *bhṛtā-s* 'borne'; *θάνατο-ς* 'death': *θνητό-ς* 'mortal'; *κωκυρό-ς* 'wailing', *κοῖρο-ς* 'couch' (with *κοίτη*) and other exx. Lat. *lectu-s* (and *lectu-m*) 'couch', *lutu-s* (and *lutu-m* 'mud', cp. O.Ir. *loth* f. above. A.S. O.Icel. *sess* 'seat' (cp. Lat. *sub-sessa* f. 'ambush'): Skr. *sattā-s* 'sitting' Lat. *ob-sessu-s*; O.H.G. *giwāht* 'mention, fame': Skr. *uktā-s* 'spoken'; Goth. *mōþ-s* 'wrath' O.H.G. *muot* 'spirit, temper, courage' beside O.C.Sl. *mě-ti* 'to dare'; O.H.G. *frost* (and O.Icel. *frost* n.) 'frost' beside *friosan* 'to freeze'. Lith. *būta-s* 'dwelling, house': Skr. *bhūtā-s* 'become, been', cp. O.Ir. *both* f. 'dwelling-place, hut' Skr. *bhūtā-m* 'existence with power, welfare, prosperity'; *maṣzta-s* (and *maiszta*) 'uproar': Gr. *μῑκρό-ς* 'mixed'; *τῡάρτα-s* 'enclosure': *τῡέρτα-s* 'grasped, enclosed'; of course these Lithuanian masculine forms may once have been neuter. O.C.Sl. *čŭŭ* 'number' *po-čŭŭ* 'enumeration': Skr. *citā-s* 'arranged in rows or layers', cp. Skr. *cīta* 'layer'; *podŭ-jetŭ* 'grasp, support' *podŭ-jetŭ* 'grasped, undertaken'.

Remark. With regard to the relation of the forms with vocalism of the strong grade to those with that of the weak grade (e. g. O.C.Sl. *pāto peto*) see p. 221 above.

-no- -nā-, -eno- -enā-, -ono- -onā-.

Fem. Avest. *per'nā-* Goth. *fullō* 'fulness': Avest. *per'na-* Goth. *full-s* 'full'. Skr. *jaraṇā* 'old age': Skr. *jaraṇā-* 'deerepit'. O.H.G. *stulina* 'theft': O.Icel. *stolenn* 'stolen'.

Neut. O.H.G. *zorn* A.S. *torn* 'anger, wrath', orig. 'a torn or rent condition of the temper': Skr. *dīrṇā-s* 'torn to pieces';

O.H.G. *mein* 'falsehood, mischief': *mein* 'false, deceitful'. Skr. *vāhana-m* 'a carrying': *vahana-s* 'carrying' O.C.Sl. *vezēnū* 'carried'; *vārtana-m* 'turning, motion': *vartana-s* 'setting in motion'; *māna-m* 'measuring, measurement': *vi-māna-s* 'measuring out'. Goth. *baíran* inf. 'bear': *baúran-s* 'borne'.

Masc. Skr. *uṣṇa-s* (also *uṣṇa-m uṣṇa*) 'heat': *uṣṇá-s* 'hot'. Skr. *yajñá-s* 'reverence': Gr. *ἄγνός* 'worthy of reverence, sacred, pure'. Gr. *θῦνος* 'onset, fight': Skr. *dhūna-s* 'violent, agitated'. O.H.G. *scīn* 'visibility, brightness, gleam': *scīn* 'visible'.

-*io*- -*ia*-.

Fem. Skr. *kṛtyā-* 'infliction, bevitchment': *kṛtya-s* 'faciendus'. Gr. *φρατερία* O.C.Sl. *bratrŭja* 'brotherhood': Gr. *φράτριοις* orig. 'brotherly'. Gr. *ἡσυχία* 'peace': *ἡσυχίος* 'peaceful'; *ξενία* 'hospitality': *ξένιος* 'hospitable'. Lat. *noxia* 'guilt, crime': *noxius* 'guilty, criminal'. O.H.G. *lugī* (which implies a preceding **lug-iō*-) O.C.Sl. *lŭža* 'lie': O.H.G. *luggi lukki* O.C.Sl. *lŭžŭ* 'lying, false'. A.S. *nyt* O.Icel. *nyt-r* 'use, advantage': A.S. *nyt* O.H.G. *nuzzi* 'useful, serviceable'. O.C.Sl. feminines like *suša* 'dryness' *qrožda* 'folly', see p. 131.

Neut. Skr. *vācya-m* 'speaking, word, blame': *vācya-s* 'dicendus'; *kṣatriya-m* 'lordship, supremacy': *kṣatriya-s* 'possessing lordship, ruler'. Gr. *σφάγιο-ν* 'offering, beast of offering': *σφάγιος* 'striking, killing'; *ἐλκτήριο-ν* 'delight, enchantment': *ἐλκτήριοις* 'delighting, enchanting'. Lat. *auguriu-m* 'act of divination, prophecy': *auguriu-s* 'prophetic'. O.H.G. *gi-fuori* 'suitability, usefulness': *gi-fuori* 'suitable, useful'. Furthermore forms like Lith. *kiŕti-s* 'cut, blow' (: Skr. *kartya-s* 'to be hewn or cut off') etc. no doubt represent original neuters; see p. 124 f.

-*tno*- -*tyno*-. Examples of neuter forms are O.Pers. *cartana-* 'action', loc. *cartanaiy* used as infinitive, Lat. gen. *dandī* 'of giving': Lat. *dandu-s* 'to be given', Lith. *sūktina-s* 'torquendus'. See p. 161 ff.

-*tyo*- -*tyā*-. Neut.: Skr. *kārtva-m* 'task': *kārtva-s* 'faciendus'. Fem.: O.C.Sl. *žetva* 'harvest': Skr. *hāntva-s* 'feriendus'.

-*mo*- -*mā*-. Fem.: Gr. *θέρμη* 'warmth': *θερμός* Armen. *jerm* 'warm'. Goth. *miduma* 'midst': O.H.G. *metamo metemo*

'mediocris' Avest. *mađema-* 'medioximus', cp. p. 167. O.C.Sl. *tūma* 'great number', orig. 'strength': Avest. *tūma-* Skr. *tū-tumá-* 'strong', cp. p. 171. Neut.: Avest. *gar^eme-m* 'warmth': *gar^ema-* 'warm'. Masc.: Skr. *gharmá-s* 'warmth, heat': Avest. *gar^ema-* Lat. *formu-s* O.H.G. *warm* 'warm'. Goth. *rūms* O.H.G. *rūm* 'room': Goth. *rūm-s* 'roomy'; Mid.H.G. *stīm* 'turmoil, confused masses': Skr. *stīma-s* 'lazy, crawling' *pra-stīma-s* 'thronged, heaped'.

-ro- -rā-. Fem. Skr. *támisrā-* Lat. *tenebrae* 'darkness': Mid.Dutch *deemster* O.H.G. *dinstar* 'dark'. Gr. *ἄρχα* 'point, peak': *ἄρχο-ς* 'pointed' O.C.Sl. *ostrū* 'sharp'. Neut. Skr. *ta-misra-m* beside *támisrā-*, Gr. *ἄρχο-ν* beside *ἄρχα*. Skr. *chidrā-m* 'perforation, hole, interruption': *chidrā-s* 'perforated'. O.C.Sl. *vedro* 'good weather': *vedrū* 'clear, bright'.

This brief list of examples is enough to justify the conclusion that the fluctuation between the adjectival and substantival value in the *o*-nouns dates from the proethnic period¹). Now in the case of the double usage of the *es*-stems (such as Skr. *māhas-* 'greatness': *mahás-* 'great', Gr. *ψεῖδος* 'lie': *ψευδής* 'lying, false'), which is also proethnic, it can scarcely be doubted that the substantival value is the older, and it would be natural to adopt the same view in the present instance. But no decision is possible until the original meaning of the *a*-suffixes as opposed to the *o*-suffixes has been established. In discussing these (p. 106, 458) we were led to the conclusion that except in a comparatively small group of words (e. g. Lat. *equo-s equa*), they had no connexion whatever with the distinction of animal sex. A further consideration may now perhaps be suggested. Is it not precisely in the variation of meaning we have just noticed that we must look for light on the original function of the *o*-and *a*- suffixes?

1) It is still a question for investigation how far this use has been extended in the separate families of languages apart from the direct influence of the original variation of meaning in similar cases which came down from Indo-Germanic (cp. e. g. B. H. Balser, *De linguae Graecae participis in neutro genere substantive posito*, Lips. 1878, p. 29 ff.).

NOUNS WITHOUT FORMATIVE SUFFIXES (ROOT-NOUNS)¹⁾.

§ 159. The term Root-nouns is applied to those nouns which do not admit of analysis into root and formative suffix, in the termination of whose stem no element can be recognised which is similarly used elsewhere to form noun stems. Whether, however, all the nouns that fall under this definition were from the beginning absolutely simple forms, must be left an open question. Many of them, e. g. Skr. *div-* 'heaven' and Lat. *hiem-* (see below), may have been originally compound forms.

Root-nouns are found in all divisions of Indo-Germanic; they have been preserved most frequently in Aryan and the classical languages. In many instances they lost the special character of their formation and passed into the analogy of some vowel declension (cp. § 56 p. 102 f.), and we may regard this change of declension as the chief cause of their comparatively rare appearance in Armenian and in Germanic²⁾, and of their almost complete disappearance in Balto-Slavonic. Here however we are bound to discuss all the nouns of this kind which occur in the separate languages, when the change of declension has made no difference in their meaning.

The Root-nouns have no simple, clearly marked function (such as that of denoting material things, actions or any other special idea). Even those which are demonstrably proethnic have meanings of different kinds. The uncompounded examples are mostly substantives, and amongst these the nouns denoting an action (fem.) and those denoting the agent preponderate; and in the former group we must include those that are used as

1) Leo Meyer, *Die einsilbigen Nomina im Griech. und Lat.*, Kuhn's Ztschr. V 366 ff.

2) As far as the Germanic is concerned, this exchange of declension has been thoroughly discussed by B. Kahle, *Zur Entwicklung der consonantischen Declination im Germanischen*, Berlin 1887.

infinitives in Aryan, Greek and Latin. When they are the second members of compounds these nouns usually denote an agent.

This method of forming noun-stems was still in active use in the separate developement of Aryan, Greek and Italic.

§ 160. Root-nouns uncompounded.

We will begin with such examples as appear simultaneously in more than one group of languages.

1. Forms showing vowel-gradation.

**uoih-* **uik-* (✓*ueih-* 'enter'): Skr. *viś-* f. 'settlement, house, community, stock', Avest. *vīs-* O.Pers. *viš-* f. 'village community, clan'; Gr. *οἰαδε*, better written, *οἰά-δε*, 'homewards' (compare Hom. *τοῖχά-τε-ες*?); O.C.Sl. *vīs-ŭ* 'village', which follows the *i*-declension. With Skr. acc. *viś-am* cp. *dīv-am* Gr. *Δία* beside *dyām* *Zñv* (see p. 481).

**dork-* **dŕk-* (✓*derk-* 'see'): Skr. *dṛś-* f. 'seeing, perception, eye', adj. 'seeing, beholding', inf. *dṛś-ē* 'to see' (§ 162); Gr. *δόρξ* *δορξ-ός* f. 'roe, gazelle' (named from its eye).

Avest. *bar^o-z-* *ber^o-z-* f. 'height', adj. 'high'. O.Ir. *bri*, gen. *breg*, 'mountain' (I § 288 p. 230, § 298 p. 236). Goth. *baúrg-*, gen. *baúrg-s*, 'fortress, city'. Avest. *bar^o-z-* may stand for **bhr̥gh-* **bhor̥gh-* or **bher̥gh-*; all the other forms represent **bhr̥gh-*.

**sem-*, *sm-* *sm-*. Gr. *εἷς* Cret. *έιν-ς*, gen. *έιν-ός*, 'unus', *έν* 'unum' (*έιν-ός* substituted for **έμ-ος*, see I § 204 p. 170); *μῶννξ* 'with undivided hoof' for **σμ-ωννξ*, fem. *μία* for **σμ-ια*; *ἄμ-α* 'simul' instr. sing., see I § 236 p. 199. Lat. *sem-per* 'in one unbroken sequence, always'; for *-per* see I § 658, 7 p. 504.

kred-* (kerd-*) and **kŕd-* 'heart'. Skr. *śrād dadhāmi* 'I believe, trust' Lat. *crēdō* for **crezdō* (I § 507 Rem. p. 372) O.Ir. *cretim* 'credo' (I § 521 p. 379), from the pr. Idg. phrase **kred dhē-*. Lat. *cor cord-is* O.Lith. gen. pl. *szird-u* (now *szirdžiu*) from **kŕd-*, cp. Gr. *καρδ-ία* Ion. *καρδ-ίνη* etc., where the root has the same vowel-grade (I § 292 p. 234). Gr. *κηρ* no doubt for **κηρδ¹*).

1) This shows that the law of vowel shortening discussed in I § 611 p. 461 f. was later than the loss of the *d*. Cp. p. 423 footnote.

Remark 1. Armen. *sirt* and Goth. *hattrō* 'heart' represent **kērd-* or **kērd-* (the *ē* being shortened, cp. I § 614 p. 464 f.). What relation does this form bear to *kred-*? In view of this difference and of others, such as Lat. *grex*: Gr. γέγραφα (§ 52 p. 94), Gr. βρέφος: O.C.Sl. *žrěbъ* for **žerbъ*, Gr. φλέγω O.H.G. *blechen* Skr. *bhrājatē*: Skr. *bhārgas* (cp. also Skr. *drakṣyāmi* and the like I § 259 p. 212), we may perhaps suppose that the metathesis — under certain conditions — occurred in protoethnic Indo-Germanic.

**ped-* m. 'foot'. Ar. *pad-*: Skr. acc. sing. *pād-am* dat. sing. *pad-ē* loc. pl. *patsú*, Avest. acc. sing. *pāḍ-em* *pāḍ-em* dat. pl. *padbyō* instr. sing. *pād-a*. Armen. pl. *ot-k*; by its side we find ting. *otn* gen. *otin*. Gr.Dor. πῶς (πώς?) πός Att. πούς (the *ou* has not been explained), gen. ποδός etc., instr. sing. Lesb. Boeot. etc. πεδ-ά 'after, with', Heracl. *ἑταῖρ-πεδ-ος* 'amounting so 20 feet'. Lat. *pēs* *ped-is*, Umbr. *perī persi* 'pede' *du-purs-us* 'bipedibus'. In Germanic **ped-* occurs in O.Icel. *fet* n. 'step', **pod-* in A.S. *fæt* 'step'; elsewhere **pōd-*: nom. pl. O.Icel. *fætr* A.S. *fēt* = pr. Germ. **fōt-iz*, loc. sing. A.S. *fēt* = pr. Germ. **fōt-i*; Goth. acc. *fōt-u* *fōt-uns* (pr. Germ. *-un -uns* = *-m -ns*, I § 244 p. 203), on the pattern of which was formed nom. sing. *fōt-u-s* etc. (thus the correspondence of the Gothic word with Skr. *pād-ú-ṣ* would be purely accidental). For the ablaut cp. I § 311 p. 249.

Skr. *vāc-* f. 'voice, speech', without vowel gradation (acc. *vāc-am* dat. *vāc-ē*), Avest. *vāc-* *vac-* m. 'speech, word, prayer' (nom. *vāxš* acc. *vāc-em* instr. *vac-a*). Gr. ὡς f. 'voice'. Lat. *vōx* f. 'voice, word', all from √*ueq-* 'speak'. The original paradigm is uncertain, perhaps nom. **uóq(-s)* acc. **uóq-ṃ* loc. **uég-i* dat. **uq-áj*. Cp. I § 314 p. 252 f.

Skr. *bhrāj-* f. 'brightness, gleam' instr. *bhrāj-d* (cp. pres. *bhrāj-a-tē*). Gr. φλόξ φλογός f. 'flame' (cp. pres. φλέγ-ω). The root is *bhleg-* (*bhelg-*), cp. Rem. 1 above; the original paradigm of the noun is not clear.

**nas-* **nas-* 'nose'. Skr. du. *nās-a* instr. sing. *nas-d*, O.Pers. acc. *nāh-am*. Lat. *nār-em*, which has become an *i*-stem (*nārium* etc.). Cp. also A.S. *næs-dyrlo*, Lith. *nas-rai* *nós-i-s*. Originally it formed acc. **nās-ṃ* dat. **nas-áj*. Cp. I § 318 p. 257. We

cannot regard as certain the often repeated conjecture that the -s- in Lat. *nās-u-s* O.C.Sl. *nos-ŭ* is explained by supposing **nās(s)* to be the original form of the nominative, cp. I § 569 Rem. 3 p. 427.

2. Forms showing vowel-gradation, and the loss of the final consonant of the root before the -m which appears in the acc. sing. when a sonant follows. (Cp. I § 188 p. 162, § 192 p. 164).

**dīey-* **dīey* m. 'heaven, bright day'. Skr. *dyāu-ṣ* *diyāu-ṣ* acc. sing. *dyām* *diyām* *div-am* nom. pl. *dyāv-as* *diyāv-as* *div-as* loc. sing. *dyāv-i* *div-i* dat. sing. *div-ē* instr. pl. *dyū-bhi-ṣ*. Gr. Ζεῖ-ς for **Ζηϋ-ς* (I § 611 p. 461) voc. Ζεῦ acc. Ζῆν (whence sprang the forms Ζῆνα Ζηρός Ζηνι) Δί(F)-α gen. ΔίF-ός loc. ΔίF-ι. Lat. Umbr. Osc. *Jov-* (for **Dīov-*, I § 135 p. 122, § 506 p. 371) and *Di(i)ov-*: Lat. *Jov-em* *Jov-is*, *Jūpiter* *Juppiter* voc. = Ζεῦ πάτερ (I § 612 p. 463), dat. O.Lat. *Diov-ei* *Diov-e*, Umbr. Iuve Osc. *Iuv-ei* 'Iovi' Osc. *Diúv-ei* 'Iovi'; the Ital. -ov- may in all the cases = Idg. *eu* (I § 65 p. 52)¹⁾; to these add Lat. *diem* for **diēm*. Germ. gen. sing. in O.H.G. (Alemannic) *Zios-lac* A.S. *Tīwes-daez* O.Icel. *Týs-dag-r* (Goth. **Tius-dag-s*) 'day of Tiu (Zio), Tuesday'. The original paradigm seems to have been: nom. **dīēy-s* (beside this possibly a parallel form **dīēs* before consonants and when it stood last in a sentence, cp. Gr. Ζῆς Lat. *diēs*) acc. **dīēm* voc. **dīēy* (for the quality of the accent see I § 671 p. 536) loc. **dīēy-i* dat. **diy-ái* loc. pl. **dīu-sú*.

Remark 2. The analysis of **diu-* into **di-u-* is no doubt right. **diu-* seems to bear the same relation to **di-* **dei-* as *sr-* (Skr. *sru-íd-* 'flowing') bears to *sr-* *ser-* (Skr. *sar-* 'go, flow'), see § 8 Rem. 2 p. 20 f. Then as we speak of a 'root' *srey-*, we may certainly add **dīey-* to the root-nouns. However, if any scholar, in view of Avest. *bāzāu-š* O.Pers.

1) There is nothing to prevent our claiming for Italic the same double forms **dīey-* and **dīey-* as we find in Sanskrit; cp. also I § 120 p. 111 and § 153 p. 138 f., § 170 p. 150 (*bi-dēns*: *dui-dēns*). I am therefore unable to agree with Danielsson, who would separate etymologically *Jov-* and *Diov-* (Gramm. und etym. Stud. I. 49).

dahyāu-š and Gr. βασιλ-ύ-ς (for -ης) should prefer to class this word amongst those containing suffixes, I should offer no objection. It is entirely a matter of convention.

**gōu-s* m. f. 'ox, cow'. Skr. *gāu-š* acc. sing. *gām* and *gāv-am* nom. pl. *gāv-as* loc. sing. *gāv-i* dat. sing. *gāv-ē* instr. pl. *gō-bhiṣ*. Avest. *gāu-š* *gao-š* acc. *gām* *gāum* (i. e. *gav-em*) *gaom* (i. e. *gav-em*) instr. *gav-a* *gāv-a*. Armen. *kov*, gen. *kovu* (u-decl.). Gr. βοῦ-ς for *βωυ-ς (I § 611 p. 461) acc. Hom. Dor. βῶν, gen. βο(φ)-ός; the acc. βῶν is a new formation following βοῦς. Lat. *bōs* *bov-is* (is this borrowed from some Umbr.-Samn. dialect? see I § 432 Rem. 1 p. 322), Umbr. *bum* 'bovem' *buf* 'boves' *bue* 'bove'; Ital. *bov-* may be Idg. **gou-* or **geu-* (I § 65 p. 52). O.Ir. *bō* gen. *bō*, cp. I § 174 p. 153; kelt. **bov-* may be either Idg. **gou-* or **geu-* (I § 66 p. 56). O.H.G. *chuo* O.Sax. *kō*, A.S. *cū* O.Icel. *ký-r*; the relation of the vowels presents a difficulty; **kō-* (O.H.G. O.Sax.) may perhaps have been developed out of the acc. pr. Germ. **kōn* = Gr. βῶν, and **kū-* (A.S. O.Icel.) may perhaps come from an Idg. stem of the form **gū-* (cp. Skr. *śata-gu-* 'having a hundred cows' Gr. ἑκατόμ-βη = *-*gu-a*). The original paradigm may be conjecturally given as follows: nom. sing. **gōu-s* (also possibly a parallel form **gō-s* like **dīē-s*, cp. Gr. βῶς beside βοῦς) acc. sing. **gōm* nom. pl. **gōu-es* loc. sing. **gēu-i* dat. sing. **guu-ái* **gu-ái* loc. pl. **gū-sú*.

Skr. *rās* 'property, treasure, riches' acc. *rām* and *rāy-am* instr. pl. *rābhiṣ* nom. pl. *rāy-as* dat. sing. *rāy-ē*, Avest. nom. pl. *rāy-ō* inst. sing. *ray-a* gen. pl. *ray-am*; cp. Skr. *rē-vānt-* 'rich' *ray-i-š* 'property, treasure, riches'. Lat. *rēs* *rem* *rē* 'property, thing'. Cp. I § 150 p. 136.

Skr. *kṣām-* f. 'earth': nom. *kṣās* acc. *kṣām* nom. pl. *kṣām-as* loc. sing. *kṣām-i* gen. abl. sing. *kṣm-ás* *gm-ás* *jm-ás* instr. sing. *kṣam-ā* *jm-ā*. Avest. *zā* acc. *zām* gen. *z'm-ō* instr. *z'm-a*. Gr. χθών f., χθον-ός instead of *χθομ-ος (I § 204 p. 172), χθαμ-αλό-ς *χαμ-αί* (*Maīa* for **Xμ-aīa* **Γμ-aīa*?). Cp. further Lat. *hum-u-s*, *hom-ō* O.Lat. *hem-ō*, *hūm-ānu-s* (probably not for **hūmin-ānu-s*, but formed immediately from **hōm-* and only at a later

period connected with *homo*), Goth. *gum-a*, Lith. *žm-onà* 'wife' (cp. p. 346 footnote 1), O.C.Sl. *zem-lja*. The original paradigm may be conjecturally given as follows: acc. **gzhóm*¹⁾ nom. pl. **gzhóm-es* loc. sing. **gzhém-i* dat. sing. **gzhym-ái* (cp. Skr. *kṣam-ā* Gr. *χθαμ-αλό-ς* *χαμ-αί* Goth. *gum-a*) **ghm-ai* loc. pl. **gzhm-sú*.

Avest. *zyð* m. 'winter' acc. *zyam* gen. *zim-ð*. Gr. *χιών* f. 'snow', gen. *χιόν-ος* instead of **χιου-ος*, like *χθον-ός* (see p. 482). Lat. *hiem-s hiem-is*. O.Ir. *gam* 'winter' instead of **gi(i)am*- O.Cymr. *gaem* for **geam-* **gi(i)am-*, see I § 383 p. 288, § 392 p. 293. We may conjecture that the orig. paradigm was acc. **ghíóm* **ghíóm* nom. pl. **ghíóm-es* **ghíóm-es* loc. sing. **ghíém-i* **ghíém-i* dat. sing. **ghim-ái* loc. pl. **ghim-sú* **ghim-sú*. The word may be mentioned here, although it is certainly not a root-noun in the strict sense of the word, cp. Skr. *hē-man* Gr. *χει-μῶν*. But we find nowhere else an Idg. suffix *-em-²⁾*.

**dem-* 'house', √ *dem-* 'build'. Gen. Skr. *dán* Avest. *dəæg* = pr. Ar. **dam-s*, Avest. loc. *dam* = pr. Ar. **dām*. Gr. gen. **δενς* = Skr. *dán* in *δισ-πότης* 'lord of the house' (I § 204 p. 171); *δα-* = **dṃ-* in *δά-πεδο-ν* 'house-floor', then 'ground' in general; here probably must be classed *δάμαρτ-* 'wife', which should be analysed into *δαμ-αρτ-* = Idg. **dṃm-* (I § 236 p. 199); remarks

1) As regards the initial part of the word I assume the correctness of Bartholomae's hypothesis, see I § 554 Rem. 1. p. 407.

2) In view of the fact that words of contrasted meaning often influence each other in form (on this point cp. amongst others the Author, Ber. der kgl. sächs. Gesellsch. der Wissensch. 1883 p. 191 ff., W. Meyer, Die Schicksale des lat. Neutrums im Romanischen 1883 p. 12, Holthausen in Paul-Braune's Beitr. XIII 590, Wheeler, Analogy and the scope of its application in language, Ithaca N. Y. 1887, p. 19 sq.), it is not a very bold conjecture that there once existed in protoethnic Indo-Germanic a form **gh(i)en-*, whose *n* gave place to *m* under the influence of the word **sem-* 'summer' so often joined with it (Avest. *ham-* Armen. *am-arn* O.Ir. *sam* O.H.G. *sam-ar*, cp. Bartholomae, Ar. Forsch. II 111 f.). Even during the period of separate development the words for these two ideas have sometimes influenced one another; cp. e. g. O.Ir. *gam: sam* (see I § 392 p. 293), O.H.G. *wintar: sumar* (see Kahle, Zur Entwickl. der consonant. Decl. im Germ., 1887, p. 20).

on further examples from Greek may be found in R. Meringer's paper in the *Ztschr. f. österr. Gymn.* 1888 p. 152. Cp. also Avest. *dm-āna-* and Armen. *tun* gen. *tan* for **tm-an-*. We may conjecture therefore that the following was the original paradigm: acc. **dōm*, whence Gr. *δῶμ-α*, nom. pl. **dōm-es*, loc. sing. **dēm-i* gen. sing. **dēm-s* (cp. gen. Skr. *gōṣ* Avest. *gaoṣ*, Skr. *dyōṣ*), dat. sing. **dm-ái* **dmm-ái* loc. pl. **dm-sú*.

As to the forms **djem* **gōm* **rēm* see I § 150 p. 136, § 188 p. 162. I may now also refer the reader to Johansson, *De derivatis verbis contractis* (Upsala 1886) p. 117 ff., R. Meringer, *Ztschr. f. österr. Gymn.* 1888 p. 132 ff.

Obs. 3. Meringer's welcome 'Hints' shew very clearly that in the question he discusses there is much that still needs explanation. Here I can only add a few remarks (cp. p. 428 footnote). I regard the accusatives also (**gzhōm* **ghīm* **dōm*) as regular phonetic developments. What Meringer (in footnote 6 p. 139) offers as 'another possible solution' is distinctly preferable to that which is given in the text itself; for if there had ever been a nom. sing. **dīēs* **gōs* without *u*, it is certain that the *u* would never have been again inserted in these forms (Skr. *dyāúṣ*) without being at the same time restored to the precisely parallel acc. sing. (such a form as **dyāum* is unheard of). Moreover, I do not feel convinced that *u* and *i* ever disappeared before consonants and at the end of a sentence in the nom. sing. as well as the acc. (Gr. *Ζῆς* Lat. *dīēs*, Gr. *βῶς*, Skr. *rās* Lat. *rēs*); in all these we must allow the possibility of a re-formation on the model of the acc. sing. With regard to *kṣās* I must here emphatically repeat what I have said elsewhere. Meringer's assertion (p. 132. 137), that J. Schmidt has 'demonstrated' the loss of *n* after *ā ē ō* before final *s* in pro-ethnic Indo-Germanic, does not agree with the facts (cp. § 135 Rem. 1 p. 428). Lastly, I would add that we are not justified in assuming the same Indo-Germanic inflexion for all monosyllabic stems of this kind, so as to construct e. g. an acc. **nām* 'navem' simply on the model of **gōm*. It is not necessary to suppose that all these monosyllables arose at the same period of the parent language. For example, **nāu-* 'ship' may have been formed at a later stage, and so have been dealt with otherwise than the older stems were at the time when they came into existence.

3. Forms in which vowel-gradation cannot be proved.

**rēg-* 'ruler, king'. Skr. *rāj-* 'prince, king', usually found as the second member of compound words. Lat. *rēx* *rēg-is*. O.Ir. *rī* *rīg*, Gall. *Cātu-rīg-es* ('battle-lords'). Goth. *reik-* nom. pl. *reik-s*; the *ei* is remarkable (I § 74 p. 64).

Skr. *ās-* (instr. *ās-ā*) Avest. *āh-* (n.?) 'month'. Lat. *ās* n., *ōr-is*. Cp. also O.Icel. *ōs-s* 'river-mouth'.

Gr. *φῶρ* Lat. *fūr* 'thief'. $\sqrt{bher-}$ 'carry'.

Gr. *χῆρ* 'hedgehog', Lat. *ēr hēr*.

**nāy-* f. 'ship'. Skr. *nāú-*š acc. *nāv-am* dat. *nāv-ē*. Gr. *ναῦς* for **nāy-*s, *ναοί* for **nāy-*οί (Ion. *νηῦς* *νηοί* are new formations), nom. pl. *νη-ες* gen. sing. *νη-ός* *νεός* (I § 611 p. 464). Lat. *nāv-em*, which has become an *i*-stem, nom. *nāv-i-s*. Cp. also O.Icel. *nōr* (gen. *nōs*) m. from pr. Germ. **nōy-a-z*.

**mūs-* 'mouse'. Skr. *mūš-*, nom. pl. *mūš-as*. Gr. *μῦς* loc. pl. *μῦοί*; *μῦν* *μυός* instead of **μῦ(σ)-α* **μῦ(σ)-ός* follow *ὀφρῦν -ύος* and the like; *μυός* then produced *μυοί* beside *μῦοί*. Lat. *mūs-* *mūr-is* Germ. *mūs-* is kept e. g. in nom. acc. sing. O.H.G. *mās*, nom. pl. A.S. *mȳs* O.Icel. *mȳs-s*; beside which we find new formations following the vowel declension. O.C.Sl. *mysi* follows the *i*-declension. A by-form Idg. **mus-* (the accentless form of the weak grade) is seen in Skr. *muš-ká-s* Lat. *mus-culu-s* (should we assume a parallel form *mūsculu-s*?) § 88 p. 262 f.

Skr. *dtś-* f. 'direction, region of the sky', Lat. gen. *dic-is* in *dicis causa* 'only in appearance, for form's sake', $\sqrt{deik-}$ 'point out, show'.

Gr. *νίψ-α* acc. 'snow', Lat. *nix niv-is*, go back to a common ground-form **snigh-* (I § 423 p. 309, § 433 p. 322 f.), $\sqrt{sneigh-}$.

Gr. *χῆν* *χην-ός* Dor. *χᾶν* *χᾶν-ός* 'goose' for **χανσ-*; the nom. *χῆν* is a new formation which has replaced **χᾶς* as *μῆν* replaced *μείς* (stem pr. Gr. **μηνσ-*). In Germanic the same stem occurs in a few forms, as in A.S. loc. sing. *zēs* = Gr. *χην-ί*, and also in the Lith. gen. pl. *žas-ū*, which elsewhere conforms to the vowel-declension. The *-s-* of the word however, may perhaps be an element of the nature of a suffix, cp. O.H.G. *ganazzo* 'gander'.

Gr. *ᾶλ-ς* *άλ-ός* m. Lat. *sal sal-is* m. n. 'salt', Umbr. *salu* 'salet'; Lat. *sal* instead of **sal* follows forms like *pēs*. Armen. *al* gen. *al-l* and O.C.Sl. *sol-ŭ* are *i*-stems.

4. There is a special group of forms in which are found *-ū -ī -ŭ -ĭ -Ĵ* before case-endings which begin with a con-

sonant, and *-uy- -iġ- -yn- -yr- -l-* before those which begin with a vowel. See I § 253 p. 207, § 306 p. 243, § 312 p. 250.

**bhrú-s* f. 'eyebrow' dat. sing. **bhruy-áġ*. Skr. *bhrú-ś* loc. pl. *bhrū-śū* acc. sing. *bhrūv-am* dat. sing. *bhruv-ē*. Gr. *ὀφρῦ-ς* acc. *ὀφρῦ-ν* gen. *ὀφρῦ-ος*; loc. pl. *ὀφρῦσαι* instead of **ὀφρῦσαι*. A.S. *brū*. The O.C.Sl. *brŭv-ŭ* belongs to the *i*-decl. Compare the parallel forms Gall. *brīva* 'bridge' O.H.G. *brāwa* 'brow' whose common ground-form is **bhrēu-a-*.

**sū-s* 'sow' dat. sing. **snuy-áġ*. Gr. *ῥ-ς ῥ-ν ῥ-ός*. Lat. *sū-s* *sū-bus* *su-em* *su-is*, Umbr. *sim* 'suem' (I § 57 p. 46). O.H.G. *sū* O.Icel. *sý-r*; **snuy-* is perhaps represented by A.S. *suзу* f. 'sow', see Bugge, Paul-Braune's Beitr. XIII 509 f. Cp. the dimin. *sū-qo-* § 88 p. 263.

Gr. *ἰχθῦ-ς ἰχθῦν ἰχθῦ-ος* m. 'fish'. Lith. gen. pl. dial. *žuv-ū*; elsewhere it follows the *i*-decl., *žuv-i-s*. Cp. Armen. *ju-k-n* etc. § 88 p. 263.

Gr. *ἰ-ς* f. 'power, might' instr. *ἰ-φι*. Lat. *vis vim* for **vi-m* (I § 612 p. 463, § 655, 4 p. 503). **uiġ-* before sonants seems to have disappeared.

The other instances belong only to single groups of languages: e. g. Skr. *gō-śā-s* gen. *-śān-as* 'gaining cattle' (*-ā-*), *pūr* gen. *pūr-ās* 'fortress' (*-ā-*).

5. Skr. *jya- jiyā-* f. Gr. *βία* f. 'might'. Compare Skr. perf. *ji-jyāu* subst. neut. *jyāna-m* and perf. *ji-gāy-a* pres. *jāy-a-ti*. Cp. § 8 Rem. 1. p. 20, and Morph. Unt. I 6.

§ 161. Examples from single groups of languages. The largest numbers are found in Aryan, Greek, and Italic.

Aryan. When they denote an action these root-nouns are always feminine.

Skr. *drūh-* f. 'injury, enmity', concrete 'injurer, enemy', Avest. *druj-* f. 'lie', concrete 'fiend (f.)'. Skr. *kṛp-* f. 'figure, appearance', Avest. *kehrp-* f. 'figure, body': cp. Lat. *corp-us*. Skr. *kṣāp-* f. Avest. *xšap-* f. 'night'. Skr. Avest. *ap-* f. 'water': acc. Skr. *āp-am* Avest. *āp-em*, instr. Skr. *ap-d* Avest. *ap-a* Skr. acc. *khā-m* f. 'source', finds its complement in Avest. *xā* f. 'source',

both from pr. Ar. **khē-s* **khē-m*, beside Ar. *khan-* 'dig'. Skr. *spāś-* Avest. *spas-* m. 'spy, inspector', cp. Lat. *au-sper*, Gr. *οἰώψ* 'owl'. Skr. *hṛd-* n. Avest. *zard-* n. 'heart'. Skr. *māh-* Avest. *maz-* 'great'.

Skr. *vydh-* f. 'help, prosperity', adj. 'helping, strengthening'. *vyt-* f. 'host of foes, foe', adj. 'turned against anyone'. *nyt-* f. 'bearing, gesture'. *yūj-* 'yoked with, companion', cp. Gr. *ὀ-ζυξ* Lat. *con-jux*. *iś-* 'lord'. *bhū-* f. 'world', nom. sing. *bhū-ḥ* pl. *bhūv-as*. *dhī-* f. 'thought'. *bhī-* f. 'fear'. *gīr-* f. 'praise, laud', adj. 'praising', nom. sing. *gīr* ground-form **gī-s* pl. *gīr-as* ground-form **gīr-es*. *jā-* f. 'being, creature' adj. 'born, formed', nom. sing. *jā-s* acc. sing. *jā-m* loc. pl. *jā-su*, ground-form **gī-*. *sthā-* 'standing', nom. sing. *sthā-s* acc. *sthā-m*. *pśa-* f. 'food' *ni-drā-* f. 'sleep' *vra-* f. 'host, troop' like *jya-* § 160, 5 (Morph. Unt. I 18. 43).

Avest. *var'z-* *ver'z-* 'work'. *mas-* 'great, wide', cp. Gr. *μακρό-ς*.

Armenian. The old root-nouns have passed into other declensions. See the examples in § 160. It is however possible that certain case-forms, such as *ot-ē* 'pedes' *sirt-ē* 'corda', still belong to the old consonantal inflexion.

Greek. *στῦξ στῦγ-ός* f. 'hatred, awe', cp. *ψευδοί-στυξ* 'hating lies'. *πρῶξ πρωκ-ός* f. 'drop, dew', ground-form **přk-*, see I § 306 p. 242. *ἀλκ-ί* loc. sing. beside *ἀλκ-ή* 'strength of body'. *κρόκ-α* acc. sing. beside *κρόκ-η* 'woof', compared with *κρέκειν*, which was also used of the noise caused by the striking of the web. *φρίξ φρίτκ-ός* f. beside *φρίτκ-η* 'the shiver of the surface of the water'. Thus no doubt *δίκ-η* has replaced an older **dīξ* = Skr. *dīś-*. *λύγξ λυγγ-ός* f. 'hiccough' beside *λυγάνομαι* *λύζω* *λύγ-δην* (O.H.G. *sluccho* n. 'devourer'); for the nasal in the root-syllable cp. I § 221 p. 187 and Skr. *yūñj-* beside *yūj-* (acc. *yūñj-am* and *yūj-am*) Lat. *con-junx* beside *-jux*. *θρίξ τριχ-ός* f. 'hair' (cp. I § 496 p. 364 f.). *αὔλαξ* f. 'furrow' for **ā-flax-*, with the by-forms *ᾠλξ* *ἄλοξ* *ᾠλαξ*, seems to have sprung from an old doublet **Flax-*: **Folx-* with ablaut, from (s)*melq-* 'draw, pull' (cp. Darbishire, Notes on the spir. asper in Greek, Cambridge 1888,

p. 29). ῥῶξ ῥωγ-ός f. 'rift, cleft, split', beside ῥήγ-νῦ-μι. ὤψ 'countenance' acc. ὤπ-α; compare κύκλ-ωψ ἑλικ-ωπ-εις and οἶν-ον αἰθ-ον, which probably shew an old gradation ὤψ ὤπ-α *ὀπ-ός etc. κροῖ n. 'barley' no²doubt for *κροῖθ, cp. κροῖθή. θώς, gen. θωός, 'jackal' beside θεF- 'run'. χροή 'necessity' (cp. also ὁμοκλή 'joint cry, loud cry', μεσό-δμη 'intermediate structure, cross-beam'), like βιά § 160, 5 (Morph. Unt. I 49. 64). κρεξ κρεκ-ός m. a bird, and also 'braggart', beside κρέκω, cp. κρόκ-α above. τρώξ τρωγ-ός m. 'gnawer, worm' beside τρώγω. κῆ-ς κ-ός m. 'a worm in the corn', like Skr. dhī-ṣ dhiy-ās. κλώψ m. 'thief' beside κλέπ-τω. Further examples are given by Bloomfield, Amer. Journ. of Phil. IX 7 ff.

Italic. Lat. lēx lēg-is f. 'law', Osc. ligud 'lege' ligis 'legibus' Marruc. lixs 'lex' or 'leges' Pelign. lex-e 'in leges'. Lat. vās vās-is n. 'vessel', Umbr. vas-us 'vasis' (the preservation of the voiceless *s* in all the cases is perhaps due to the analogy of the nom. acc. sing.). man- 'hand', Umbr. man f acc. pl., Lat. man-ceps malluviae for *man-luviae, with other exx. (Danielsson, Pauli's Altital. Stud. III 189 f., Duvau, Mém. de la Soc. de lingu. VI 226 f.). The connexion between Lat. frūx frūg-is f. 'produce' and Umbr. frif acc. 'fruges, frumenta' (I § 57 p. 46) is doubtful, see Pauli Altital. Stud. V 114 f.

Lat. lūx lūc-is f. 'light'. nux nuc-is f. 'nut'. pix pic-is f. 'pitch'. vic- gen. vic-is f. 'change' (beside vincō, see Osthoff, Paul-Br. Beitr. VIII 272). nex nec-is f. 'death'. prex prec-is f. 'prayer'. op-s op-is f. 'might, means, power'. pāx pāc-is f. 'peace'. dap-s dap-is f. 'feast', beside Gr. δαν-άρη 'expenditure'. arx arc-is f. 'citadel'. faex faec-is f. 'dregs'. faux fauc-is f. 'throat'. spē-s, acc. spe-m, f. 'hope'. re-quiē-s, gen. -quiēt, f. like Skr. jyā- § 160, 5 (Morph. Unt. I 10). strix strig-is f. 'horned owl'. dux duc-is m. 'leader'. vas vad-is m. 'surety'.

Osc. far n. 'far' and Umbr. far n. 'far' farer 'farris' appears to be a root-noun; far-: Lat. farr- (for *far(e)s-, see § 132 p. 413 and p. 420) = Skr. kfp-: Lat. corpus.

Old Irish. bri 'mountain', rī 'king', bō 'cow', see § 160. This method of forming noun-stems seems to have died out in

Irish. Cp. further the Gall. *brog*- 'district, neighbourhood, land' in *allo-brox* pl. *allo-broges*, parallel to which we find *brogi*- in *Brogi-mārus* O.Ir. *bruig* and other exx. (Zimmer, Kelt. Stud. I 117 f. Thurneysen, Keltoroman. 50).

Germanic. The original root-nouns (§ 160) were all more or less completely transferred to the vowel declensions; e. g. out of the Goth. paradigm, sing. nom. *baúrgs* gen. *baúrgs* dat. (loc.) *baúrg* acc. *baúrg* pl. nom. *baúrgs* gen. *baúrgē* dat. *baúrgim* acc. *baúrgs* only the gen. dat. sing. and the nom.-acc. pl. belong to the original consonantal declension.

Even amongst the few root-nouns which do not recur in other languages there are none in which the simple root is used for the stem in all the cases. Examples of forms whose stems contain no suffix are: O.H.G. dat. sing. *gi-nōz* nom. pl. *gi-nōz* beside nom. sing. *gi-nōz* 'companion' (i. e. 'one who enjoys (*geniesst*) with another'), A.S. dat. (loc.) sing. *bēc* beside nom. sing. *bōc* 'book', O.Icel. nom. pl. *hend-r* beside nom. sing. *hond* (Goth. *handu-s*) 'hand'; see Kahle's essay cited on p. 478 footnote 2. As regards some of these nouns it is probable that they had at first a vocalic formative suffix, and that it was a secondary process, affecting even then only a certain number of their cases, which put them on a level with the root-nouns.

Balto-Slavonic. The root-nouns as a class have almost entirely disappeared, giving place to new formations on the model of the vocalic declensions; e. g. Lith. *nós-i-s* f. 'nose', O.C.Sl. *vīs-ī* f. 'village', see § 160. Besides these there are only a few traces preserved in the forms of the gen. pl. in Lithuanian: O.Lith. *szird-u*, Mod.Lith. *šird-ū šuv-ū*; we should add Slav. *krŭv-* f. 'blood' gen. sing. *krŭv-e*, beside which we have nom. sing. *krŭv-ī* instead of **kry*.

§ 162. *Nomina actionis* used as Infinitives. Cp. § 156 p. 470 ff.

This usage is found in Aryan, Greek and Italic. In all three the dative is used as an infinitive; in Sanskrit other cases are used as well.

In Sanskrit the case-suffix had the accent, if the verb had no prefix; otherwise the accent fell on the root-syllable. *dyś-ē* 'to see' *bhuj-ē* 'to enjoy', *nir-ājē* 'to drive forth' (Lat. *ag-i*) *ni-nāmē* 'to bend down'. Avest. *sav-ōi* 'to use' *dar's-ōi* 'to see'.

Lat. *ag-i* (: Skr. *-ājē*), *dīc-i*, *sequ-i* *ūt-i*, hence also *tund-i* *posc-i* *mi-nu-i* etc. in imitation of these forms. A difference in meaning was established between these and the locative forms *agere* etc. (§ 132 p. 418), the latter being distinguished as active, the former as deponent or passive forms; the origin of this process was probably an accidental preponderance of the use of the dative of root-nouns to serve as infinitives in deponent verbs.

-s- sometimes appears between the root-syllable and the dative termination. This is rare in Aryan: Skr. *jī-ś-ē* 'to conquer' *-prāk-ś-ē* 'to fill, satisfy', Avest. *a nāšē* 'to bring near', root Avest. *nas-* Gr. *ἐνεγκ-*. Gr. *γράφαι* 'to write' *δείξαι* 'to show'. The -s- is identical with the element which is frequently found in the verb finite after the root-syllable, particularly in the sigmatic aorist, to which it gave its name (it is very possible that it is etymologically identical with the -s- which is used in the formation of noun-stems, § 134 p. 424 ff.; cp. Morph. Unt. III 42 f.); hence in Greek this kind of infinitive was confined to the sigmatic aorist. In Latin we may compare such forms as *da-rī* *fer-rī*.

Remark 1. There are difficulties in determining the relation of the Latin forms in *-se -re* to those in **-sī -rī*; several different views are almost equally tenable. If we start by assuming that Latin inherited from an earlier period only forms in **-es-i* (*vivere amāre*) **-aī* (*agī*) **-s-aī* (*darī*), we must suppose that the following are new formations: *dare ferre* on the model of *vivere amāre*, and on the other hand *amārī* following *darī*, *fierī* also instead of *fiere*. But perhaps even in the pre-Italic period there were parallel forms in **-s-i* (*da-re*), cp. *dixē scripse* and Skr. infinitives like *dyś-i* (see below). Lastly it is also possible that on the analogy of indic. **aget*: infin. **agesi* (*agit: agere*) the infinitives **es-si* **fer-si* (*esse* and *ferre* respectively) were first formed to correspond to *es-t fer-t* and that then and not before *ferri* was formed on the model of *agī*.

Remark 2. In Old Latin and even later in poetic diction beside the forms in *-ī* and *-rī* we find equivalent forms in *-ier* and *-rier*, as *agier darier*. It has often been assumed that *agier* should be analysed into *agie-r*, -r being the sign of the passive as in *agitu-r*, and **agie* being the

ground-form of *agī*. This every one would admit if **agīe* could be explained as an infinitive form¹⁾, and if the change from *-ie* to *-ī* could be shewn to be regular (it is not shewn by the voc. *fīli*, for the *-ī* of this form may be the original weak-grade of *-iō-* *-iē-*, cp. § 63 p. 122). Other explanations of *-ier* *-rier* are equally unsatisfactory; see e. g. J. Stadelmann, *De quantitate vocalium Latinas voces terminantium*, Lucerne 1884, p. 73, V. Henry *Mém. de la Soc. de lingu.* VI 62 ff. I conjecture that *-er* represents the preposition *ar* (*ar-biter ar-vorsus*), which appears to be of dialectic origin (I § 369 Rem. 1 p. 280). For the change of *-ar* to *-er* see I § 97, 3 p. 91, cp. *in-ers arti-fex im-pertiō*; and for the position of the word cp. *quem ad* beside *ad quem* and Umbr. *asam-ař* 'ad aram'. It need not surprise us to find at so early a stage of Latin the combination of the infinitive with a preposition which is established in the Romance languages (cp. *ad* before the infinitive, as Ital. *ho a scrivere*, Diez *Gramm* III⁴ 231 ff.), since even in Latin the infinitive had again approximated to the noun, and at least *inter* and *praeter* were used with it (see p. 471 ff.). Nor is there any difficulty in the assumption that *agi-er*, after the origin of the *-er* had been forgotten, had the same meaning as *agī*: the assimilation in usage was caused by the association of the final *r* of *agier* with the *r* of *agor agitur* etc. This entire class of infinitive formations, being like *ar* of dialectic origin, were allowed to drop out of use in classical prose, like so many other idioms that came from the same source.

In Sanskrit we find, besides the dative, the acc. in *-am*, the loc. in *-i* and the gen.-abl. in *-as* used as infinitives, e. g. *ā-nām-am* (*ā-nam-* 'incline or bend towards one'), *dyś-ti sq-dyś-ti* (cp. *dyś-ti* p. 490), *abhi-śrīṣ-as* (*abhi-śrīṣ-* 'make fast to').

§ 163. Root-nouns appearing as the second member of compound words.

In the Indo-Germanic and later periods we find compounds in which a root is the second member, and serves as a noun to denote the agent, as in the Skr. *puru-drūh-* 'injuring many'. There is no need to assume that the root was first used in the compound as a *nomen actionis* and that the whole word was subsequently epithetised (i. e. converted into an adjective, see § 50 p. 92), since in proethnic Indo-Germanic the root could be used alone to denote the agent; cp. Skr. *rdj-* p. 484, Skr. *drūh-* Avest. *druj-* etc. p. 486 ff. More rarely the compound has a passive sense, as Skr. *sq-yuj* 'joined by bonds of friend-

1) Thurneysen's explanation seems to me improbable (*Über die Herkunft und Bildung der lat. Verba auf -io*, p. 46).

ship or kinship', cp. *yúj-* 'yoked with, companion'. Compound words of this type were formed in Aryan, Greek and Italic.

Indo-Germanic. Skr. *sq-yuj-*, see above, *manō-yúj-* 'yoked by thought, by mere will', Gr. *σύν-ζυξ* *óμó-ζυξ* 'yoked together, united', especially 'joined in marriage', Lat. *con-jux*. Skr. *viśva-vid-* 'knowing everything', Gr. *νῆ-ις* acc. *νῆ-ιδα* 'not knowing, ignorant'. Skr. *tri-bhúj-* 'threefold, triple' Avest. *qzō-būj-* 'freeing from distress', Gr. *πρόσ-φυξ* 'fugitive, client'. Skr. *pr̥tanāj-* (*pr̥tanā-aj-*) 'running in or to battle', Lat. *rēm-ex*. Skr. *muhur-gir-* 'devouring suddenly', cp. Gr. *ὠμο-βρωίς* 'devouring raw' gen. *-βρωῖ-τ-ος* etc., see I § 306 p. 242, § 312 p. 250, II § 123 p. 391.

I may add a few examples taken from the separate groups of languages.

Aryan. Skr. *vytra-hán-* Avest. *ver'pra-jan-* 'slaying Vritra': acc. Skr. *-hán-am* Avest. *-jan-em* dat. Skr. *-ghn-é* Avest. *yn-ē* loc. pl. Skr. *-há-su*. Skr. *upastha-sád-* 'sitting in the lap', Avest. *armaē-šād-* 'sitting quiet'. (Skr. *úd-añc-* 'turned or directed upwards' acc. sing. *úd-añc-am* loc. pl. *úd-ak-šu*, *ny-añc-* Avest. *ny-anc-* 'turned or directed downwards', cp. Gr. *ποδ-αν-ός* 'coming whence?' Lat. *prop-inqu-o-s* *long-inqu-o-s* (cp. I § 228 p. 195); the Sanskrit and Avestic declension of words containing *-añc-anc-* (Whitney Skr. Gr. § 407 ff., Bartholomae Handb. § 192, J. Darmesteter, Le suffixe *-ac-* en Iranien, Mém. de la Soc. de de lingu. III 302 ff.) shows many new formations, partly caused by a confusion with forms which had the suffix *-go-* (see § 86 p. 256). Skr. *satya-yáj-* 'duly honouring, duly offering' Avest. *daēva-yāz-* 'honouring the demons, offering to them'. Avest. *na-zd-* Skr. *nēd-*, only in compar. and superl., see § 135 p. 431.

In Sanskrit, compounds of this kind are very common. Any root could be used in this way. We may add as further examples *su-dṛś-* 'seeing well', *sahō-vṛdh-* 'increasing strength', *purō-yúdh-* 'fighting before', *purō-bhū-* 'being in front, surpassing'. In Iranian too this kind of formation remained in active use, cp. *vohu-var'z-* 'working good', *ahūm-mer'c-* 'slaying, injuring the world' (also *-mer'nc-*, cp. Skr. *yuñj-* Gr. *λύγξ* p. 487).

Greek. *ψευδί-στυξ* 'hating deceit'. *οἶνό-φλυξ* 'drunken with wine, wine-bibbing' (cp. I § 427 p. 314, § 428 p. 316). *χέρ-νιψ* 'water for the hands' originally 'washing the hands', *ὑπό-δρα* for **-δρακ* neut. adv. 'looking from below upwards', cp. Skr. *dfś-* f. 'sight, aspect'. Here perhaps we may class *δεῦρο* (which hitherto has never been satisfactorily explained) if it stands for **δε-φρον* 'inclined hither', compare *ρέπω* 'I incline' *ρόπή* 'inclination, sinking, direction'; *v* is regular, as in *καλα-ῥροψ*; *δεύρω* Hom. Γ 240 may be for **δε-φρων*; more probably it is only a reformation on the model of *ἄνω πρῶσω* and the like.

Italic. Lat. *jūdex* 'declarer of the law, judge' for **jouz-dic-s* (I § 33 Rem. 1 p. 33, § 594 p. 450), Osc. *med-díss* *med-dis* 'meddix' (I § 501 p. 368); in spite of its abbreviated form *metd.* which occurs once, I should prefer not to separate the first part of the Oscan word from Umbr. *meř-s mers* 'ius, fas' (§ 132 p. 418). Lat. *prae-ses -sid-is. tubi-cen -cin-is. libri-pēns -pend-is. redux -duc-is.*

Remark. For *arti-fex opi-fex* see § 85 p. 254.

Germanic. O.H.G. *ort* O.Icel. *odd-r* 'point' may have been a compound of this kind, standing for **ud+dhē-* 'upraise, lift on high' (I § 536 Rem. p. 392); it is however quite conceivable that the original form was **ud+dh-o-*, with the suffix *-o-*, which in this position would date from a very early period.

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